

&lt;400&gt; 4810

Met Ala Met Gln Met Gln Leu Glu Ala Asn Ala Asp Thr Ser Val Glu  
 1 5 10 15  
 Glu Glu Ser Phe Gly Pro Gln Pro Ile Ser Arg Leu Glu Gln Cys Gly  
 20 25 30  
 Ile Asn Ala Asn Asp Val Lys Lys Leu Glu Glu Ala Gly Phe His Thr  
 35 40 45  
 Val Glu Ala Val Ala Tyr Ala Pro Lys Lys Glu Leu Ile Asn Ile Lys  
 50 55 60  
 Gly Ile Ser Glu Ala Lys Ala Asp Lys Ile Leu Thr Glu Ser Arg Ser  
 65 70 75 80  
 Val Ala Arg Leu Glu Cys Asn Ser Val Ile Leu Val Tyr Cys Thr Leu  
 85 90 95  
 Arg Leu Ser Gly Ser Ser Asp Ser Pro Ala Ser Ala Ser Arg Val Val  
 100 105 110  
 Gly Thr Thr Gly Gly Ile Glu Thr Gly Ser Ile Thr Glu Met Phe Gly  
 115 120 125  
 Glu Phe Arg Thr Gly Lys Thr Gln Ile Cys His Thr Leu Ala Val Thr  
 130 135 140  
 Cys Gln Leu Pro Ile Asp Arg Gly Gly Glu Gly Lys Ala Met Tyr  
 145 150 155 160  
 Ile Asp Thr Glu Gly Thr Phe Arg Pro Glu Arg Leu Leu Ala Val Ala  
 165 170 175  
 Glu Arg Tyr Gly Leu Ser Gly Ser Asp Val Leu Asp Asn Val Ala Tyr  
 180 185 190  
 Ala Arg Ala Phe Asn Thr Asp His Gln Thr Gln Leu Leu Tyr Gln Ala  
 195 200 205  
 Ser Ala Met Met Val Glu Ser Arg Tyr Ala Leu Leu Ile Val Asp Ser  
 210 215 220  
 Ala Thr Ala Leu Tyr Arg Thr Asp Tyr Ser Gly Arg Gly Glu Leu Ser  
 225 230 235 240  
 Ala Arg Gln Met His Leu Ala Arg Phe Leu Arg Met Leu Leu Arg Leu  
 245 250 255  
 Ala Asp Glu Phe Gly Val Ala Val Val Ile Thr Asn Gln Val Val Ala  
 260 265 270

Gln Val Asp Gly Ala Ala Met Phe Ala Ala Asp Pro Lys Lys Pro Ile  
 275 280 285  
 Gly Gly Asn Ile Ile Ala His Ala Ser Thr Thr Arg Leu Tyr Leu Arg  
 290 295 300  
 Lys Gly Arg Gly Glu Thr Arg Ile Cys Lys Ile Tyr Asp Ser Pro Cys  
 305 310 315 320  
 Leu Pro Glu Ala Glu Ala Met Phe Ala Ile Asn Ala Asp Gly Val Gly  
 325 330 335  
 Asp Ala Lys Asp  
 340

<210> 4811

<211> 698

<212> PRT

<213> Homo sapiens

<400> 4811

Met Glu Thr Arg Gly Leu Ala Asp Ser Gly Gln Gly Ser Phe Thr Gly  
 1 5 10 15  
 Gln Gly Ile Ala Arg Phe Gly Arg Ile Gln Lys Lys Ser Gln Pro Glu  
 20 25 30  
 Lys Val Val Arg Ala Ala Ser Arg Gly Arg Pro Leu Ile Gly Trp Thr  
 35 40 45  
 Gln Trp Cys Ala Glu Asp Gly Gly Asp Glu Ser Glu Met Ala Leu Ala  
 50 55 60  
 Gly Ser Pro Gly Cys Ser Ser Gly Pro Gln Gly Arg Leu Ser Arg Leu  
 65 70 75 80  
 Ile Phe Leu Leu Arg Arg Trp Ala Ala Arg His Val His His Gln Asp  
 85 90 95  
 Gln Gly Pro Asp Ser Phe Pro Asp Arg Phe Arg Gly Ala Glu Leu Lys  
 100 105 110  
 Glu Val Ser Ser Gln Glu Ser Asn Ala Gln Ala Asn Val Gly Ser Gln  
 115 120 125  
 Glu Pro Ala Asp Arg Gly Arg Ser Ala Trp Pro Leu Ala Lys Cys Asn  
 130 135 140

Thr Asn Thr Ser Asn Asn Thr Glu Glu Glu Lys Lys Thr Lys Lys Lys  
 145 150 155 160  
 Asp Ala Ile Val Val Asp Pro Ser Ser Asn Leu Tyr Tyr Arg Trp Leu  
 165 170 175  
 Thr Ala Ile Ala Leu Pro Val Phe His Asn Trp Tyr Leu Leu Ile Cys  
 180 185 190  
 Arg Ala Cys Phe Asp Glu Leu Gln Ser Glu Tyr Leu Met Leu Trp Leu  
 195 200 205  
 Val Leu Asp Tyr Ser Ala Asp Val Leu Tyr Val Leu Asp Val Leu Val  
 210 215 220  
 Arg Ala Arg Thr Gly Phe Leu Glu Gln Gly Leu Met Val Ser Asp Thr  
 225 230 235 240  
 Asn Arg Leu Trp Gln His Tyr Lys Thr Thr Thr Gln Phe Lys Leu Asp  
 245 250 255  
 Val Leu Ser Leu Val Pro Thr Asp Leu Ala Tyr Leu Lys Val Gly Thr  
 260 265 270  
 Asn Tyr Pro Glu Val Arg Phe Asn Arg Leu Leu Lys Phe Ser Arg Leu  
 275 280 285  
 Phe Glu Phe Phe Asp Arg Thr Glu Thr Arg Thr Asn Tyr Pro Asn Met  
 290 295 300  
 Phe Arg Ile Gly Asn Leu Val Leu Tyr Ile Leu Ile Ile His Trp  
 305 310 315 320  
 Asn Ala Cys Ile Tyr Phe Ala Ile Ser Lys Phe Ile Gly Phe Gly Thr  
 325 330 335  
 Asp Ser Trp Val Tyr Pro Asn Ile Ser Ile Pro Glu His Gly Arg Leu  
 340 345 350  
 Ser Arg Lys Tyr Ile Tyr Ser Leu Tyr Trp Ser Thr Leu Thr Leu Thr  
 355 360 365  
 Thr Ile Gly Glu Thr Pro Pro Val Lys Asp Glu Glu Tyr Leu Phe  
 370 375 380  
 Val Val Val Asp Phe Leu Val Gly Val Leu Ile Phe Ala Thr Ile Val  
 385 390 395 400  
 Gly Asn Val Gly Ser Met Ile Ser Asn Met Asn Ala Ser Arg Ala Glu  
 405 410 415  
 Phe Gln Ala Lys Ile Asp Ser Ile Lys Gln Tyr Met Gln Phe Arg Lys  
 420 425 430

Val Thr Lys Asp Leu Glu Thr Arg Val Ile Arg Trp Phe Asp Tyr Leu  
 435 440 445  
 Trp Ala Asn Lys Lys Thr Val Asp Glu Lys Glu Val Leu Lys Ser Leu  
 450 455 460  
 Pro Asp Lys Leu Lys Ala Glu Ile Ala Ile Asn Val His Leu Asp Thr  
 465 470 475 480  
 Leu Lys Lys Val Arg Ile Phe Gln Asp Cys Glu Ala Gly Leu Leu Val  
 485 490 495  
 Glu Leu Val Leu Lys Leu Arg Pro Thr Val Phe Ser Pro Gly Asp Tyr  
 500 505 510  
 Ile Cys Lys Lys Gly Asp Ile Gly Lys Glu Met Tyr Ile Ile Asn Glu  
 515 520 525  
 Gly Lys Leu Ala Val Val Ala Asp Asp Gly Val Thr Gln Phe Val Val  
 530 535 540  
 Leu Ser Asp Gly Ser Tyr Phe Gly Glu Ile Ser Ile Leu Asn Ile Lys  
 545 550 555 560  
 Gly Ser Lys Ser Gly Asn Arg Arg Thr Ala Asn Ile Arg Ser Ile Gly  
 565 570 575  
 Tyr Ser Asp Leu Phe Cys Leu Ser Lys Asp Asp Leu Met Glu Ala Leu  
 580 585 590  
 Thr Glu Tyr Pro Glu Ala Lys Lys Ala Leu Glu Glu Lys Gly Arg Gln  
 595 600 605  
 Ile Leu Met Lys Asp Asn Leu Ile Asp Glu Glu Leu Ala Arg Ala Gly  
 610 615 620  
 Ala Asp Pro Lys Asp Leu Glu Glu Lys Val Glu Gln Leu Gly Ser Ser  
 625 630 635 640  
 Leu Asp Thr Leu Gln Thr Arg Phe Ala Arg Leu Leu Ala Glu Tyr Asn  
 645 650 655  
 Ala Thr Gln Met Lys Met Lys Gln Arg Leu Ser Gln Leu Glu Ser Gln  
 660 665 670  
 Val Lys Gly Gly Asp Lys Pro Leu Ala Asp Gly Glu Val Pro Gly  
 675 680 685  
 Asp Ala Thr Lys Thr Glu Asp Lys Gln Gln  
 690 695

&lt;210&gt; 4812

&lt;211&gt; 544

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4812

Met	Asp	Gly	Leu	Asp	Asn	Arg	Gly	Glu	Ile	Val	Val	Ile	Gly	Ala	Thr
1									10						15
Asn	Arg	Leu	Asp	Ser	Ile	Asp	Pro	Ala	Leu	Arg	Arg	Pro	Gly	Arg	Phe
					20				25						30
Asp	Arg	Glu	Phe	Leu	Phe	Asn	Leu	Pro	Asp	Gln	Lys	Ala	Arg	Lys	His
					35				40						45
Ile	Leu	Gln	Ile	His	Thr	Arg	Asp	Trp	Asn	Pro	Lys	Leu	Ser	Asp	Ala
					50				55						60
Phe	Leu	Gly	Glu	Leu	Ala	Glu	Lys	Cys	Val	Gly	Tyr	Cys	Gly	Ala	Asp
					65				70						80
Ile	Lys	Ala	Leu	Cys	Thr	Glu	Ala	Ala	Leu	Ile	Ala	Leu	Arg	Arg	Arg
					85				90						95
Tyr	Pro	Gln	Ile	Tyr	Ala	Ser	Ser	His	Lys	Leu	Gln	Leu	Asp	Val	Ser
					100				105						110
Ser	Ile	Val	Leu	Ser	Ala	Gln	Asp	Phe	Tyr	His	Ala	Met	Gln	Asn	Ile
					115				120						125
Val	Pro	Ala	Ser	Gln	Arg	Ala	Val	Met	Ser	Ser	Gly	His	Ala	Leu	Ser
					130				135						140
Pro	Ile	Ile	Arg	Pro	Leu	Leu	Glu	Arg	Ser	Phe	Asn	Asn	Ile	Leu	Ala
					145				150						160
Val	Leu	Gln	Lys	Val	Phe	Pro	His	Ala	Glu	Ile	Ser	Gln	Ser	Asp	Lys
					165				170						175
Lys	Glu	Asp	Ile	Glu	Thr	Leu	Ile	Leu	Glu	Asp	Ser	Glu	Asp	Glu	Asn
					180				185						190
Ala	Leu	Ser	Ile	Phe	Glu	Thr	Asn	Cys	His	Ser	Gly	Ser	Pro	Lys	Lys
					195				200						205
Gln	Ser	Ser	Ser	Ala	Ala	Ile	His	Lys	Pro	Tyr	Leu	His	Phe	Thr	Met
					210				215						220
Ser	Pro	Tyr	His	Gln	Pro	Thr	Ser	Tyr	Arg	Pro	Arg	Leu	Leu	Leu	Ser

225	230	235	240
Gly Glu Arg Gly Ser Gly Gln Thr Ser His Leu Ala Pro Ala Leu Leu			
245	250	255	
His Thr Leu Glu Arg Phe Ser Val His Arg Leu Asp Leu Pro Ala Leu			
260	265	270	
Tyr Ser Val Ser Ala Lys Thr Pro Glu Glu Ser Cys Ala Gln Ile Phe			
275	280	285	
Arg Glu Ala Arg Arg Thr Val Pro Ser Ile Val Tyr Met Pro His Ile			
290	295	300	
Gly Asp Trp Trp Glu Ala Val Ser Glu Thr Val Arg Ala Thr Phe Leu			
305	310	315	320
Thr Leu Leu Gln Asp Ile Pro Ser Phe Ser Pro Ile Phe Leu Leu Ser			
325	330	335	
Thr Ser Glu Thr Met Tyr Ser Glu Leu Pro Glu Glu Val Lys Cys Ile			
340	345	350	
Phe Arg Ile Gln Tyr Glu Glu Val Leu Tyr Ile Gln Arg Pro Ile Glu			
355	360	365	
Glu Asp Arg Arg Lys Phe Phe Gln Glu Leu Ile Leu Asn Gln Ala Ser			
370	375	380	
Met Ala Pro Pro Arg Arg Lys His Ala Ala Leu Cys Ala Met Glu Val			
385	390	395	400
Leu Pro Leu Ala Leu Pro Ser Pro Pro Arg Gln Leu Ser Glu Ser Glu			
405	410	415	
Lys Ser Arg Met Glu Asp Gln Glu Glu Asn Thr Leu Arg Glu Leu Arg			
420	425	430	
Leu Phe Leu Arg Asp Val Thr Lys Arg Leu Ala Thr Asp Lys Arg Phe			
435	440	445	
Asn Ile Phe Ser Lys Pro Val Asp Ile Glu Glu Val Ser Asp Tyr Leu			
450	455	460	
Glu Val Ile Lys Glu Pro Met Asp Leu Ser Thr Val Ile Thr Lys Ile			
465	470	475	480
Asp Lys His Asn Tyr Leu Thr Ala Lys Asp Phe Leu Lys Asp Ile Asp			
485	490	495	
Leu Ile Cys Ser Asn Ala Leu Glu Tyr Asn Pro Asp Lys Asp Pro Gly			
500	505	510	
Asp Lys Ile Ile Arg His Arg Ala Cys Thr Leu Lys Asp Thr Ala His			

515	520	525
Ala Ile Ile Ala Ala Glu Leu Asp Pro Glu Phe Asn Lys Leu Cys Glu		
530	535	540
<210> 4813		
<211> 334		
<212> PRT		
<213> Homo sapiens		
<400> 4813		
Met Val Gly Gln Gly Cys Ser Leu Glu Pro Arg Leu Asp Leu Arg Pro		
1	5	10
Leu Gly Asn Pro Arg Ser Lys Gln Ser Arg His Gln Ser Trp Val Trp		
20	25	30
Glu Arg Gln Glu Gly Glu Arg Asn Gly Gly Ser Lys Glu Gly Lys Glu		
35	40	45
Gly Gly Arg Gly Ser Lys Thr Val Ile Pro Ile Pro Ile Ser Asp		
50	55	60
Leu Glu Leu Ala Ser Thr Pro Val His Pro Cys Arg Gly Gly Pro Ser		
65	70	75
Pro Gln Leu Leu Pro Arg Glu Tyr Gly Gly Val Gly Ile Leu Trp		
85	90	95
Leu Ser Ser Leu Pro Leu Leu Cys Arg Leu Met Leu Gly Phe Met Gly		
100	105	110
Val Thr Ala Leu Leu Ser Met Trp Ile Ser Asn Thr Ala Thr Thr Ala		
115	120	125
Met Met Val Pro Ile Val Glu Ala Ile Leu Gln Gln Met Glu Ala Thr		
130	135	140
Ser Ala Ala Thr Glu Ala Gly Leu Glu Leu Val Asp Lys Gly Lys Ala		
145	150	155
Lys Glu Leu Pro Gly Ser Gln Val Ile Phe Glu Gly Pro Thr Leu Gly		
165	170	175
Gln Gln Glu Asp Gln Glu Arg Lys Arg Leu Cys Lys Ala Met Thr Leu		
180	185	190
Cys Ile Cys Tyr Ala Ala Ser Ile Gly Gly Thr Ala Thr Leu Thr Gly		

195	200	205
Thr Gly Pro Asn Val Val Leu Leu Gly Gln Met Asn Glu Leu Phe Pro		
210	215	220
Asp Ser Lys Asp Leu Val Asn Phe Ala Ser Trp Phe Ala Phe Ala Phe		
225	230	235
Pro Asn Met Leu Val Met Leu Leu Phe Ala Trp Leu Trp Leu Gln Phe		
245	250	255
Val Tyr Met Arg Phe Asn Phe Lys Lys Ser Trp Gly Cys Gly Leu Glu		
260	265	270
Ser Lys Lys Asn Glu Lys Ala Ala Leu Lys Val Leu Gln Glu Glu Tyr		
275	280	285
Arg Lys Leu Gly Pro Leu Ser Phe Ala Glu Ile Asn Val Leu Ile Cys		
290	295	300
Phe Phe Leu Leu Val Ile Leu Trp Phe Ser Arg Asp Pro Gly Phe Met		
305	310	315
Pro Gly Trp Leu Thr Val Ala Trp Val Glu Gly Glu Thr Lys		
325	330	

<210> 4814

<211> 451

<212> PRT

<213> Homo sapiens

<400> 4814

Met Asn Lys Ala Pro Gln Ser Thr Gly Pro Pro Pro Ala Pro Ser Pro			
1	5	10	15
Gly Leu Pro Gln Pro Ala Phe Pro Pro Gly Gln Thr Ala Pro Val Val			
20	25	30	
Phe Ser Thr Pro Gln Ala Thr Gln Met Asn Thr Pro Ser Gln Pro Arg			
35	40	45	
Gln His Phe Tyr Pro Ser Arg Ala Gln Pro Pro Ser Ser Ala Ala Ser			
50	55	60	
Arg Val Gln Ser Ala Ala Pro Ala Arg Pro Gly Pro Ala Ala Leu Pro			
65	70	75	80
Pro Val Ser Pro Leu Lys Ala Ala Leu Ser Glu Glu Glu Leu Glu Lys			

85	90	95
Lys Ser Lys Ala Ile Ile Glu Glu Tyr Leu His Leu Asn Asp Met Lys		
100	105	110
Glu Ala Val Gln Cys Val Gln Glu Leu Ala Ser Pro Ser Leu Leu Phe		
115	120	125
Ile Phe Val Arg His Gly Val Glu Ser Thr Leu Glu Arg Ser Ala Ile		
130	135	140
Ala Arg Glu His Met Gly Gln Leu Leu His Gln Leu Leu Cys Ala Gly		
145	150	155
His Leu Ser Thr Ala Gln Tyr Tyr Gln Gly Leu Tyr Glu Ile Leu Glu		
165	170	175
Leu Ala Glu Asp Met Glu Ile Asp Ile Pro His Val Trp Leu Tyr Leu		
180	185	190
Ala Glu Leu Val Thr Pro Ile Leu Gln Glu Gly Gly Val Pro Met Gly		
195	200	205
Glu Leu Phe Arg Glu Ile Thr Lys Pro Leu Arg Pro Leu Gly Lys Ala		
210	215	220
Ala Ser Leu Leu Leu Glu Ile Leu Gly Leu Leu Cys Lys Ser Met Gly		
225	230	235
Pro Lys Lys Val Gly Thr Leu Trp Arg Glu Ala Gly Leu Ser Trp Lys		
245	250	255
Glu Phe Leu Pro Glu Gly Gln Asp Ile Gly Ala Phe Val Ala Glu Gln		
260	265	270
Lys Val Glu Tyr Thr Leu Gly Glu Glu Ser Glu Ala Pro Gly Gln Arg		
275	280	285
Ala Leu Pro Ser Glu Glu Leu Asn Arg Gln Leu Glu Lys Leu Leu Lys		
290	295	300
Glu Gly Ser Ser Asn Gln Arg Val Phe Asp Trp Ile Glu Ala Asn Leu		
305	310	315
Ser Glu Gln Gln Ile Val Ser Asn Thr Leu Val Arg Ala Leu Met Thr		
325	330	335
Ala Val Cys Tyr Ser Ala Ile Ile Phe Glu Thr Pro Leu Arg Val Asp		
340	345	350
Val Ala Val Leu Lys Ala Arg Ala Lys Leu Leu Gln Lys Tyr Leu Cys		
355	360	365
Asp Glu Gln Lys Glu Leu Gln Ala Leu Tyr Ala Leu Gln Ala Leu Val		

370	375	380
Val Thr Leu Glu Gln Pro Pro Asn Leu Leu Arg Met Phe Phe Asp Ala		
385	390	395
Leu Tyr Asp Glu Asp Val Val Lys Glu Asp Ala Phe Tyr Ser Trp Glu		
405	410	415
Ser Ser Lys Asp Pro Ala Glu Gln Gln Gly Lys Gly Val Ala Leu Lys		
420	425	430
Ser Val Thr Ala Phe Phe Lys Trp Leu Arg Glu Ala Glu Glu Glu Ser		
435	440	445
Asp His Asn		
450		

<210> 4815

<211> 694

<212> PRT

<213> Homo sapiens

<400> 4815

Met Glu Arg Ala Met Glu Gln Leu Asn Arg Leu Thr Arg Ser Leu Arg		
1	5	10
Arg Ala Arg Thr Val Glu Leu Pro Glu Asp Asn Glu Thr Ala Val Tyr		
20	25	30
Thr Leu Met Pro Met Val Met Ala Asp Gln His Arg Ser Val Ser Glu		
35	40	45
Leu Leu Ser Asn Ser Lys Phe Asp Val Asn Tyr Ala Phe Gly Arg Val		
50	55	60
Lys Arg Ser Leu Leu His Ile Ala Ala Asn Cys Gly Ser Val Glu Cys		
65	70	75
Leu Val Leu Leu Lys Lys Gly Ala Asn Pro Asn Tyr Gln Asp Ile		
85	90	95
Ser Gly Cys Thr Pro Leu His Leu Ala Ala Arg Asn Gly Gln Lys Lys		
100	105	110
Cys Met Ser Lys Leu Leu Glu Tyr Ser Ala Asp Val Asn Ile Cys Asn		
115	120	125
Asn Glu Gly Pro Thr Ala Ile His Trp Leu Ala Val Asn Gly Arg Thr		

130	135	140
Glu Leu Leu His Asp Leu Val Gln His Val Ser Asp Val Asp Val Glu		
145	150	155
Asp Ala Met Gly Gln Thr Ala Leu His Val Ala Cys Gln Asn Gly His		
165	170	175
Lys Thr Thr Val Gln Cys Leu Leu Asp Ser Gly Ala Asp Ile Asn Arg		
180	185	190
Pro Asn Val Ser Gly Ala Thr Pro Leu Tyr Phe Ala Cys Ser His Gly		
195	200	205
Gln Arg Asp Thr Ala Gln Ile Leu Leu Leu Arg Gly Ala Lys Tyr Leu		
210	215	220
Pro Asp Lys Asn Gly Val Thr Pro Leu Asp Leu Cys Val Gln Gly Gly		
225	230	235
Tyr Gly Glu Thr Cys Glu Val Leu Ile Gln Tyr His Pro Arg Leu Phe		
245	250	255
Gln Thr Ile Ile Gln Met Thr Gln Asn Glu Asp Leu Arg Glu Asn Met		
260	265	270
Leu Arg Gln Val Leu Glu His Leu Ser Gln Gln Ser Glu Ser Gln Tyr		
275	280	285
Leu Lys Ile Leu Thr Ser Leu Ala Glu Val Ser Thr Thr Asn Gly His		
290	295	300
Lys Leu Leu Ser Leu Ser Ser Asn Tyr Asp Ala Gln Met Lys Ser Leu		
305	310	315
Leu Arg Ile Val Arg Met Phe Cys His Val Phe Arg Ile Gly Pro Ser		
325	330	335
Ser Pro Ser Asn Gly Ile Asp Met Gly Tyr Asn Gly Asn Lys Thr Pro		
340	345	350
Arg Ser Gln Val Phe Lys Pro Leu Glu Leu Leu Trp His Ser Leu Asp		
355	360	365
Glu Trp Leu Val Leu Ile Ala Thr Glu Leu Met Lys Asn Lys Arg Asp		
370	375	380
Ser Thr Glu Ile Thr Ser Ile Leu Leu Lys Gln Lys Gly Gln Asp Gln		
385	390	395
Asp Ala Ala Ser Ile Pro Pro Phe Glu Pro Pro Gly Pro Gly Ser Tyr		
405	410	415
Glu Asn Leu Ser Thr Gly Thr Arg Glu Ser Lys Pro Asp Ala Leu Ala		

420	425	430
Gly Arg Gln Glu Ala Ser Ala Asp Cys Gln Asp Val Ile Ser Met Thr		
435	440	445
Ala Asn Arg Leu Ser Ala Val Ile Gln Ala Phe Tyr Met Cys Cys Ser		
450	455	460
Cys Gln Met Pro Pro Gly Met Thr Ser Pro Arg Phe Ile Glu Phe Val		
465	470	475
480		
Cys Lys His Asp Glu Val Leu Lys Cys Phe Val Asn Arg Asn Pro Lys		
485	490	495
Ile Ile Phe Asp His Phe His Phe Leu Leu Glu Cys Pro Glu Leu Met		
500	505	510
Ser Arg Phe Met His Ile Ile Lys Ala Gln Ala Glu Tyr Val Gln Leu		
515	520	525
Val Thr Glu Leu Arg Met Thr Arg Ala Ile Gln Pro Gln Ile Asn Ala		
530	535	540
Phe Leu Gln Gly Phe His Met Phe Ile Pro Pro Ser Leu Ile Gln Leu		
545	550	555
560		
Phe Asp Glu Tyr Glu Leu Glu Leu Leu Ser Gly Met Pro Glu Ile		
565	570	575
Asp Val Ser Asp Trp Ile Lys Asn Thr Glu Tyr Thr Ser Gly Tyr Glu		
580	585	590
Arg Glu Asp Pro Val Ile Gln Trp Phe Trp Glu Val Val Glu Asp Ile		
595	600	605
Thr Gln Glu Glu Arg Val Leu Leu Leu Gln Phe Val Thr Gly Ser Ser		
610	615	620
Arg Val Pro His Gly Gly Phe Ala Asn Ile Met Gly Gly Ser Gly Leu		
625	630	635
640		
Gln Asn Phe Thr Ile Ala Ala Val Pro Tyr Thr Pro Asn Leu Leu Pro		
645	650	655
Thr Ser Ser Thr Cys Ile Asn Met Leu Lys Leu Pro Glu Tyr Pro Ser		
660	665	670
Lys Glu Ile Leu Lys Asp Arg Leu Leu Val Ala Leu His Cys Gly Ser		
675	680	685
Tyr Gly Tyr Thr Met Ala		
690		

&lt;210&gt; 4816

&lt;211&gt; 649

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4816

Met	Pro	Lys	Ala	Glu	Ala	Asn	Leu	Gly	Gly	Leu	Ser	Ser	Leu	Val	Val
1			5				10						15		
Asn	Thr	Pro	Ile	Thr	Ser	Val	Ser	Leu	Ser	His	Ser	Ser	Ser	Glu	Ser
	20					25							30		
Ser	Lys	Met	Ser	Glu	Ser	Lys	Asp	Gln	Glu	Asn	Asn	Cys	Glu	Arg	Pro
	35				40							45			
Lys	Glu	Ser	Asn	Val	Leu	His	Pro	Asn	Gly	Glu	Cys	Pro	Val	Lys	Ser
	50				55			60							
Glu	Pro	Thr	Glu	Pro	Gly	Asp	Glu	Asp	Glu	Glu	Asp	Ala	Tyr	Ser	Asn
	65				70			75				80			
Glu	Leu	Asp	Asp	Glu	Glu	Val	Leu	Gly	Glu	Leu	Thr	Asp	Ser	Ile	Gly
	85					90						95			
Asn	Lys	Asp	Phe	Pro	Leu	Leu	Asn	Gln	Ser	Ile	Ser	Pro	Leu	Ser	Ser
	100					105			110						
Ser	Val	Leu	Lys	Phe	Ile	Glu	Lys	Gly	Thr	Ser	Ser	Ser	Ser	Ala	Thr
	115					120			125						
Val	Ser	Asp	Asp	Thr	Glu	Lys	Lys	Gln	Thr	Ala	Ala	Val	Arg	Ala	
	130				135			140							
Ser	Gly	Ser	Val	Ala	Ser	Asn	Tyr	Gly	Ile	Ser	Gly	Lys	Asp	Phe	Ala
	145				150			155				160			
Asp	Ala	Ser	Ala	Ser	Lys	Asp	Ser	Ala	Thr	Ala	Ala	His	Pro	Ser	Glu
	165					170			175						
Ile	Ala	Arg	Gly	Asp	Glu	Asp	Ser	Ser	Ala	Thr	Pro	His	Gln	His	Gly
	180				185			190							
Phe	Thr	Pro	Ser	Thr	Pro	Gly	Thr	Pro	Gly	Pro	Gly	Asp	Gly	Ser	
	195				200			205							
Pro	Gly	Ser	Gly	Ile	Glu	Cys	Pro	Lys	Cys	Asp	Thr	Val	Leu	Gly	Ser
	210				215			220							
Ser	Arg	Ser	Leu	Gly	Gly	His	Met	Thr	Met	Met	His	Ser	Arg	Asn	Ser

225	230	235	240
Cys Lys Thr Leu Lys Cys Pro Lys Cys Asn Trp His Tyr Lys Tyr Gln			
245	250	255	
Gln Thr Leu Glu Ala His Met Lys Glu Lys His Pro Glu Pro Gly Gly			
260	265	270	
Ser Cys Val Tyr Cys Lys Thr Gly Gln Pro His Pro Arg Leu Ala Arg			
275	280	285	
Gly Glu Ser Tyr Thr Cys Gly Tyr Lys Pro Phe Arg Cys Glu Val Cys			
290	295	300	
Asn Tyr Ser Thr Thr Lys Gly Asn Leu Ser Ile His Met Gln Ser			
305	310	315	320
Asp Lys His Leu Asn Asn Val Gln Asn Leu Gln Asn Gln Asn Gly Glu			
325	330	335	
Gln Val Phe Gly His Ser Ala Pro Ala Pro Asn Thr Ser Leu Ser Gly			
340	345	350	
Cys Gly Thr Pro Ser Pro Ser Lys Pro Lys Gln Lys Pro Thr Trp Arg			
355	360	365	
Cys Glu Val Cys Asp Tyr Glu Thr Asn Val Ala Arg Asn Leu Arg Ile			
370	375	380	
His Met Thr Ser Glu Lys His Met His Asn Met Met Leu Leu Gln Gln			
385	390	395	400
Asn Met Lys Gln Ile Gln His Asn Leu His Leu Gly Leu Ala Pro Ala			
405	410	415	
Glu Ala Glu Leu Tyr Gln Tyr Tyr Leu Ala Gln Asn Ile Gly Leu Thr			
420	425	430	
Gly Met Lys Leu Glu Asn Pro Ala Asp Pro Gln Leu Met Ile Asn Pro			
435	440	445	
Phe Gln Leu Asp Pro Ala Thr Ala Ala Leu Ala Pro Gly Leu Gln			
450	455	460	
Glu Leu Ser Pro Tyr Ile Ser Asp Pro Ala Leu Lys Leu Phe Gln Cys			
465	470	475	480
Ala Val Cys Asn Lys Phe Thr Ser Asp Ser Leu Glu Ala Leu Ser Val			
485	490	495	
His Val Ser Ser Glu Arg Ser Leu Pro Glu Glu Glu Trp Arg Ala Val			
500	505	510	
Ile Gly Asp Ile Tyr Gln Cys Lys Leu Cys Asn Tyr Asn Thr Gln Leu			

515	520	525
Lys Ala Asn Phe Gln Leu His Cys Glu Thr Asp Lys His Met Gln Lys		
530	535	540
Tyr Gln Leu Val Ala His Ile Lys Glu Gly Gly Lys Ser Asn Glu Trp		
545	550	555
Arg Leu Lys Cys Ile Ala Ile Gly Asn Pro Val His Leu Lys Cys Asn		
565	570	575
Ala Cys Asp Tyr Tyr Thr Asn Ser Val Asp Lys Leu Arg Leu His Thr		
580	585	590
Thr Asn His Arg His Glu Ala Ala Leu Lys Leu Tyr Lys Val Ser Ser		
595	600	605
Asp Ile His Phe Arg Trp His Arg Val Glu Lys Gly Ile Asn Ser Phe		
610	615	620
Arg Ala Trp Ser Thr Ser Leu Gln Leu Lys Glu Lys Lys Arg Glu Lys		
625	630	635
Thr Ser Lys Gly Arg Gly His Ser Phe		
645		

<210> 4817

<211> 808

<212> PRT

<213> Homo sapiens

<400> 4817

Met Leu Glu Gly His Glu Ser Tyr Asp Thr Glu Asn Phe Tyr Phe Arg			
1	5	10	15
Glu Ile Arg Lys Asn Leu Gln Glu Val Asp Phe Gln Trp Lys Asp Gly			
20	25	30	
Glu Ile Asn Tyr Lys Glu Gly Pro Met Thr His Lys Asn Asn Leu Thr			
35	40	45	
Gly Gln Arg Val Arg His Ser Gln Gly Asp Val Glu Asn Lys His Met			
50	55	60	
Glu Asn Gln Leu Ile Leu Arg Phe Gln Ser Gly Leu Gly Glu Leu Gln			
65	70	75	80
Lys Phe Gln Thr Ala Glu Lys Ile Tyr Gly Cys Asn Gln Ile Glu Arg			

85	90	95
Thr Val Asn Asn Cys Phe Leu Ala Ser Pro Leu Gln Arg Ile Phe Pro		
100	105	110
Gly Val Gln Thr Asn Ile Ser Arg Lys Tyr Gly Asn Asp Phe Leu Gln		
115	120	125
Leu Ser Leu Pro Thr Gln Asp Glu Lys Thr His Ile Arg Glu Lys Pro		
130	135	140
Tyr Ile Gly Asn Glu Cys Gly Lys Ala Phe Arg Val Ser Ser Ser Leu		
145	150	155
Ile Asn His Gln Met Ile His Thr Thr Glu Lys Pro Tyr Arg Cys Asn		
165	170	175
Glu Ser Gly Lys Ala Phe His Arg Gly Ser Leu Leu Thr Val His Gln		
180	185	190
Ile Val His Thr Arg Gly Lys Pro Tyr Gln Cys Asp Val Cys Gly Arg		
195	200	205
Ile Phe Arg Gln Asn Ser Asp Leu Val Asn His Arg Arg Ser His Thr		
210	215	220
Gly Asp Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Ser Phe Ser Lys		
225	230	235
Ser Ser His Leu Ala Val His Gln Arg Ile His Thr Gly Glu Lys Pro		
245	250	255
Tyr Lys Cys Asn Arg Cys Gly Lys Cys Phe Ser Gln Ser Ser Ser Leu		
260	265	270
Ala Thr His Gln Thr Val His Thr Gly Asp Lys Pro Tyr Lys Cys Asn		
275	280	285
Glu Cys Gly Lys Thr Phe Lys Arg Asn Ser Ser Leu Thr Ala His His		
290	295	300
Ile Ile His Ala Gly Lys Lys Pro Tyr Thr Cys Asp Val Cys Gly Lys		
305	310	315
Val Phe Tyr Gln Asn Ser Gln Leu Val Arg His Gln Ile Ile His Thr		
325	330	335
Gly Glu Thr Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Phe Gln		
340	345	350
Arg Ser Arg Leu Ala Gly His Arg Arg Ile His Thr Gly Glu Lys Pro		
355	360	365

Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser Gln His Ser His Leu  
 370 375 380  
 Ala Val His Gln Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn  
 385 390 395 400  
 Glu Cys Gly Lys Ala Phe Asn Trp Gly Ser Leu Leu Thr Val His Gln  
 405 410 415  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Val Cys Gly Lys  
 420 425 430  
 Val Phe Asn Tyr Gly Tyr Leu Ser Val His Met Arg Cys His Thr  
 435 440 445  
 Gly Glu Lys Pro Leu His Cys Asn Lys Cys Gly Met Val Phe Thr Tyr  
 450 455 460  
 Tyr Ser Cys Leu Ala Arg His Gln Arg Met His Thr Gly Glu Lys Pro  
 465 470 475 480  
 Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Ile Asp Ser Gly Asn Leu  
 485 490 495  
 Ser Ile His Arg Arg Ser His Thr Gly Glu Lys Pro Phe Gln Cys Asn  
 500 505 510  
 Glu Cys Gly Lys Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His Arg  
 515 520 525  
 Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly Lys  
 530 535 540  
 Ala Tyr Thr Gln Arg Ser Ser Leu Thr Lys His Leu Val Ile His Thr  
 545 550 555 560  
 Gly Glu Asn Pro Tyr His Cys Asn Glu Phe Gly Glu Ala Phe Ile Gln  
 565 570 575  
 Ser Ser Lys Leu Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys Pro  
 580 585 590  
 His Lys Cys Ser Glu Cys Gly Arg Thr Phe Ser His Lys Thr Ser Leu  
 595 600 605  
 Val Tyr His Gln Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile  
 610 615 620  
 Glu Cys Gly Lys Val Phe Asn Ser Thr Thr Leu Ala Arg His Arg  
 625 630 635 640  
 Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys  
 645 650 655

Val Phe Arg Tyr Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr  
 660 665 670  
 Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val  
 675 680 685  
 Arg Ser Ile Leu Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro  
 690 695 700  
 Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Asn Leu  
 705 710 715 720  
 Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys Met  
 725 730 735  
 Glu Cys Gly Lys Ala Phe Gly Arg Arg Ser Cys Leu Thr Lys His Gln  
 740 745 750  
 Arg Ile His Ser Ser Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys  
 755 760 765  
 Ser Tyr Ile Ser Arg Ser Gly Leu Thr Lys His Gln Ile Lys His Ala  
 770 775 780  
 Gly Glu Asn Leu Thr Thr Lys Leu Asn Val Glu Arg Pro Leu Asp Val  
 785 790 795 800  
 Val Leu Thr Ser Gly Ile Pro Lys  
 805

&lt;210&gt; 4818

&lt;211&gt; 602

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4818

Met Ile Gln Ser Gly Lys Gly Ala Asp Pro Pro Asp Lys Lys Asp Met  
 1 5 10 15  
 Lys Leu Ser Thr Ala Thr Asn Pro Gln Asn Gly Leu Ser Gln Ile Leu  
 20 25 30  
 Arg Leu Val Leu Gln Glu Leu Ser Leu Phe Tyr Ser Arg Asp Val Asn  
 35 40 45  
 Gly Val Cys Leu Leu Tyr Asp Leu Leu His Ser Pro Trp Leu Gln Ala  
 50 55 60

Leu Leu Lys Ile Tyr Asp Cys Leu Gln Glu Phe Lys Glu Lys Lys Leu  
 65 70 75 80  
 Val Pro Ala Thr Pro His Ala Gln Val Leu Ser Tyr Glu Val Val Glu  
 85 90 95  
 Leu Leu Arg Glu Thr Pro Thr Ser Pro Glu Ile Gln Glu Leu Arg Gln  
 100 105 110  
 Met Leu Gln Ala Pro His Phe Lys Gly Ala Thr Ile Lys Arg His Glu  
 115 120 125  
 Met Thr Gly Asp Ile Leu Val Ala Arg Ile Ile His Gly Gly Leu Ala  
 130 135 140  
 Glu Arg Ser Gly Leu Leu Tyr Ala Gly Asp Lys Leu Val Glu Val Asn  
 145 150 155 160  
 Gly Val Ser Val Glu Gly Leu Asp Pro Glu Gln Val Ile His Ile Leu  
 165 170 175  
 Ala Met Ser Arg Gly Thr Ile Met Phe Lys Val Val Pro Val Ser Asp  
 180 185 190  
 Pro Pro Val Asn Ser Gln Gln Met Val Tyr Val Arg Ala Met Thr Glu  
 195 200 205  
 Tyr Trp Pro Gln Glu Asp Pro Asp Ile Pro Cys Met Asp Ala Gly Leu  
 210 215 220  
 Pro Phe Gln Lys Gly Asp Ile Leu Gln Ile Val Asp Gln Asn Asp Ala  
 225 230 235 240  
 Leu Trp Trp Gln Ala Arg Lys Ile Ser Asp Pro Ala Thr Cys Ala Gly  
 245 250 255  
 Leu Val Pro Ser Asn His Leu Leu Lys Arg Trp Ser Phe Ala Leu Val  
 260 265 270  
 Ala Gln Ala Gly Val Gln Trp His Tyr Leu Asp Ser Leu Gln Pro Leu  
 275 280 285  
 Pro Pro Gly Phe Lys Arg Phe Ser Cys Leu Ser Leu Pro Arg Ser Trp  
 290 295 300  
 Asp Tyr Ile Glu Asp Asp Met Lys Ile Asp Glu Lys Cys Val Glu Ala  
 305 310 315 320  
 Asp Glu Glu Thr Phe Glu Ser Asp Lys Glu Glu Phe Val Gly Tyr Gly  
 325 330 335  
 Gln Lys Phe Phe Ile Ala Gly Phe Arg Arg Ser Met Arg Leu Cys Arg  
 340 345 350

Arg Lys Ser His Leu Ser Pro Leu His Ala Ser Val Cys Cys Thr Gly  
 355 360 365  
 Ser Cys Tyr Ser Ala Val Gly Ala Pro Tyr Glu Glu Val Val Arg Tyr  
 370 375 380  
 Gln Arg Arg Pro Ser Asp Lys Tyr Arg Leu Ile Val Leu Met Gly Pro  
 385 390 395 400  
 Ser Gly Val Gly Val Asn Glu Leu Arg Arg Gln Leu Ile Glu Phe Asn  
 405 410 415  
 Pro Ser His Phe Gln Ser Ala Val Pro His Thr Thr Arg Thr Lys Lys  
 420 425 430  
 Ser Tyr Glu Met Asn Gly Arg Glu Tyr His Tyr Val Ser Lys Glu Thr  
 435 440 445  
 Phe Glu Asn Leu Ile Tyr Ser His Arg Met Leu Glu Tyr Gly Glu Tyr  
 450 455 460  
 Lys Gly His Leu Tyr Gly Thr Ser Val Asp Ala Val Gln Thr Val Leu  
 465 470 475 480  
 Val Glu Gly Lys Ile Cys Val Met Asp Leu Glu Pro Gln Asp Ile Gln  
 485 490 495  
 Gly Val Arg Thr His Glu Leu Lys Pro Tyr Val Ile Phe Ile Lys Pro  
 500 505 510  
 Ser Asn Met Arg Cys Met Lys Gln Ser Arg Lys Asn Ala Lys Val Ile  
 515 520 525  
 Thr Asp Tyr Tyr Val Asp Met Lys Phe Lys Asp Glu Asp Leu Gln Glu  
 530 535 540  
 Met Glu Asn Leu Ala Gln Arg Met Glu Thr Gln Phe Gly Gln Phe Phe  
 545 550 555 560  
 Asp His Val Ile Val Asn Asp Ser Leu His Asp Ala Cys Ala Gln Leu  
 565 570 575  
 Leu Ser Ala Ile Gln Lys Ala Gln Glu Glu Pro Gln Trp Val Pro Ala  
 580 585 590  
 Thr Trp Ile Ser Ser Asp Thr Glu Ser Gln  
 595 600

&lt;210&gt; 4819

&lt;211&gt; 498

<212> PRT

<213> *Homo sapiens*

4819

Met	Glu	Ser	Pro	Arg	Gly	Trp	Thr	Leu	Gln	Val	Ala	Pro	Glu	Glu	Gly
1															
Gln	Val	Leu	Cys	Asn	Val	Lys	Thr	Ala	Thr	Arg	Gly	Leu	Ser	Glu	Gly
	20						25							30	
Ala	Val	Ser	Gly	Gly	Trp	Gly	Ala	Trp	Glu	Asn	Ser	Thr	Glu	Val	Pro
Arg	Glu	Ala	Gly	Asp	Gly	Gln	Arg	Gln	Gln	Ala	Thr	Leu	Gly	Ala	Ala
Asp	Glu	Gln	Gly	Gly	Pro	Gly	Arg	Glu	Leu	Gly	Pro	Ala	Asp	Gly	Gly
65			70						75					80	
Arg	Asp	Gly	Ala	Gly	Pro	Arg	Ser	Glu	Pro	Ala	Asp	Arg	Ala	Leu	Arg
85								90						95	
Pro	Ser	Pro	Leu	Pro	Glu	Glu	Pro	Gly	Cys	Arg	Cys	Gly	Glu	Cys	Gly
100							105							110	
Lys	Ala	Phe	Ser	Gln	Gly	Ser	Tyr	Leu	Leu	Gln	His	Arg	Arg	Val	His
115							120							125	
Thr	Gly	Glu	Lys	Pro	Tyr	Thr	Cys	Pro	Glu	Cys	Gly	Lys	Ala	Phe	Ala
130							135							140	
Trp	Ser	Ser	Asn	Leu	Ser	Gln	His	Gln	Arg	Ile	His	Ser	Gly	Glu	Lys
145							150							160	
Pro	Tyr	Ala	Cys	Arg	Glu	Cys	Gly	Lys	Ala	Phe	Arg	Ala	Gln	Ser	Gln
165								170						175	
Leu	Ile	His	His	Gln	Glu	Thr	His	Ser	Gly	Leu	Lys	Pro	Phe	Arg	Cys
180								185						190	
Pro	Asp	Cys	Gly	Lys	Ser	Phe	Gly	Arg	Ser	Thr	Thr	Leu	Val	Gln	His
195							200							205	
Arg	Arg	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Pro	Glu	Cys	Gly
210							215							220	
Lys	Ala	Phe	Ser	Trp	Asn	Ser	Asn	Phe	Leu	Glu	His	Arg	Arg	Val	His
225							230							240	
Thr	Gly	Ala	Arg	Pro	His	Ala	Cys	Arg	Asp	Cys	Gly	Lys	Ala	Phe	Ser
245								250						255	

Gln Ser Ser Asn Leu Ala Glu His Leu Lys Ile His Ala Gly Ala Arg  
 260 265 270  
 Pro His Ala Cys Pro Asp Cys Gly Lys Ala Phe Val Arg Val Ala Gly  
 275 280 285  
 Leu Arg Gln His Arg Arg Thr His Ser Ser Glu Lys Pro Phe Pro Cys  
 290 295 300  
 Ala Glu Cys Gly Lys Ala Phe Arg Glu Ser Ser Gln Leu Leu Gln His  
 305 310 315 320  
 Gln Arg Thr His Thr Gly Glu Arg Pro Phe Glu Cys Ala Glu Cys Gly  
 325 330 335  
 Gln Ala Phe Val Met Gly Ser Tyr Leu Ala Glu His Arg Arg Val His  
 340 345 350  
 Thr Gly Glu Lys Pro His Ala Cys Ala Gln Cys Gly Lys Ala Phe Ser  
 355 360 365  
 Gln Arg Ser Asn Leu Leu Ser His Arg Arg Thr His Ser Gly Ala Lys  
 370 375 380  
 Pro Phe Ala Cys Ala Asp Cys Gly Lys Ala Phe Arg Gly Ser Ser Gly  
 385 390 395 400  
 Leu Ala His His Arg Leu Ser His Thr Gly Glu Arg Pro Phe Ala Cys  
 405 410 415  
 Ala Glu Cys Gly Lys Ala Phe Arg Gly Ser Ser Glu Leu Arg Gln His  
 420 425 430  
 Gln Arg Leu His Ser Gly Glu Arg Pro Phe Val Cys Ala His Cys Ser  
 435 440 445  
 Lys Ala Phe Val Arg Lys Ser Glu Leu Leu Ser His Arg Arg Thr His  
 450 455 460  
 Thr Gly Glu Arg Pro Tyr Ala Cys Gly Glu Cys Gly Lys Pro Phe Ser  
 465 470 475 480  
 His Arg Cys Asn Leu Asn Glu His Gln Lys Arg His Gly Gly Arg Ala  
 485 490 495  
 Ala Pro

&lt;210&gt; 4820

&lt;211&gt; 486

<212> PRT

<213> *Homo sapiens*

<400> 4820

Met	Arg	Gly	Arg	Gly	Ser	Gln	Gln	Gln	Pro	Thr	Arg	Arg	Gln	Gly		
1	5								10				15			
Gln	Lys	Leu	Pro	Ser	Pro	Ser	Pro	Ala	Gly	Lys	Tyr	Glu	Ser	Ala	Gln	
													20	25	30	
Pro	Gly	Gly	Thr	Gln	Pro	Glu	Pro	Gly	Leu	Gly	Ala	Arg	Met	Ala	Ile	
													35	40	45	
His	Lys	Ala	Leu	Val	Met	Cys	Leu	Gly	Leu	Pro	Leu	Phe	Leu	Phe	Pro	
													50	55	60	
Gly	Ala	Trp	Ala	Gln	Gly	His	Val	Pro	Pro	Gly	Cys	Ser	Gln	Gly	Leu	
													65	70	75	80
Asn	Pro	Leu	Tyr	Tyr	Asn	Leu	Cys	Asp	Arg	Ser	Gly	Ala	Trp	Gly	Ile	
													85	90	95	
Val	Leu	Glu	Ala	Val	Ala	Gly	Ala	Gly	Ile	Val	Thr	Thr	Phe	Val	Leu	
													100	105	110	
Thr	Ile	Ile	Leu	Val	Ala	Ser	Leu	Pro	Phe	Val	Gln	Asp	Thr	Lys	Lys	
													115	120	125	
Arg	Ser	Leu	Leu	Gly	Thr	Gln	Val	Phe	Phe	Leu	Leu	Gly	Thr	Leu	Gly	
													130	135	140	
Leu	Phe	Cys	Leu	Val	Phe	Ala	Cys	Val	Val	Lys	Pro	Asp	Phe	Ser	Thr	
													145	150	155	160
Cys	Ala	Ser	Arg	Arg	Phe	Leu	Phe	Gly	Val	Leu	Phe	Ala	Ile	Cys	Phe	
													165	170	175	
Ser	Cys	Leu	Ala	Ala	His	Val	Phe	Ala	Leu	Asn	Phe	Leu	Ala	Arg	Lys	
													180	185	190	
Asn	His	Gly	Pro	Arg	Gly	Trp	Val	Ile	Phe	Thr	Val	Ala	Leu	Leu	Leu	
													195	200	205	
Thr	Leu	Val	Glu	Val	Ile	Ile	Asn	Thr	Glu	Trp	Leu	Ile	Ile	Thr	Leu	
													210	215	220	
Val	Arg	Gly	Ser	Gly	Glu	Gly	Pro	Gln	Gly	Asn	Ser	Ser	Ala	Gly		
													225	230	235	240
Trp	Ala	Val	Ala	Ser	Pro	Cys	Ala	Ile	Ala	Asn	Met	Asp	Phe	Val	Met	
													245	250	255	

Ala Leu Ile Tyr Val Met Leu Leu Leu Leu Gly Ala Phe Leu Gly Ala  
 260 265 270  
 Trp Pro Ala Leu Cys Gly Arg Tyr Lys Arg Trp Arg Lys His Gly Val  
 275 280 285  
 Phe Val Leu Leu Thr Thr Ala Thr Ser Val Ala Ile Trp Val Val Trp  
 290 295 300  
 Ile Val Met Tyr Thr Tyr Gly Asn Lys Gln His Asn Ser Pro Thr Trp  
 305 310 315 320  
 Asp Asp Pro Thr Leu Ala Ile Ala Leu Ala Ala Asn Ala Trp Ala Phe  
 325 330 335  
 Val Leu Phe Tyr Val Ile Pro Glu Val Ser Gln Val Thr Lys Ser Ser  
 340 345 350  
 Pro Glu Gln Ser Tyr Gln Gly Asp Met Tyr Pro Thr Arg Gly Val Gly  
 355 360 365  
 Tyr Glu Thr Ile Leu Lys Glu Gln Lys Gly Gln Ser Met Phe Val Glu  
 370 375 380  
 Asn Lys Ala Phe Ser Met Asp Glu Pro Val Ala Ala Lys Arg Pro Val  
 385 390 395 400  
 Ser Pro Tyr Ser Gly Tyr Asn Gly Gln Leu Leu Thr Ser Val Tyr Gln  
 405 410 415  
 Pro Thr Glu Met Ala Leu Met His Lys Val Pro Ser Glu Gly Ala Tyr  
 420 425 430  
 Asp Ile Ile Leu Pro Arg Ala Thr Ala Asn Ser Gln Val Met Gly Ser  
 435 440 445  
 Ala Asn Ser Thr Leu Arg Ala Glu Asp Met Tyr Ser Ala Gln Ser His  
 450 455 460  
 Gln Ala Ala Thr Pro Pro Lys Asp Gly Lys Asn Ser Gln Val Phe Arg  
 465 470 475 480  
 Asn Pro Tyr Val Trp Asp  
 485

&lt;210&gt; 4821

&lt;211&gt; 301

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4821

Met Tyr Thr Arg Arg Tyr Ser Ser Ile Ser Ser Thr Ile Met Asp Val  
 1 5 10 15  
 Asp Ser Thr Ile Ser Ser Gly Arg Ser Thr Pro Ala Met Met Asn Gly  
 20 25 30  
 Gln Gly Ser Thr Thr Ser Ser Lys Asn Ile Ala Tyr Asn Cys Cys  
 35 40 45  
 Trp Asp Gln Cys Gln Ala Cys Phe Asn Ser Ser Pro Asp Leu Ala Asp  
 50 55 60  
 His Ile Arg Ser Ile His Val Asp Gly Gln Arg Gly Gly Val Phe Val  
 65 70 75 80  
 Cys Leu Trp Lys Gly Cys Lys Val Tyr Asn Thr Pro Ser Thr Ser Gln  
 85 90 95  
 Ser Trp Leu Gln Arg His Met Leu Thr His Ser Gly Asp Lys Pro Phe  
 100 105 110  
 Lys Cys Val Val Gly Gly Cys Asn Ala Ser Phe Ala Ser Gln Gly Gly  
 115 120 125  
 Leu Ala Arg His Val Pro Thr His Phe Ser Gln Gln Asn Ser Ser Lys  
 130 135 140  
 Val Ser Ser Gln Pro Lys Ala Lys Glu Glu Ser Pro Ser Lys Ala Gly  
 145 150 155 160  
 Met Asn Lys Arg Arg Lys Leu Lys Asn Lys Arg Arg Arg Ser Leu Pro  
 165 170 175  
 Arg Pro His Asp Phe Phe Asp Ala Gln Thr Leu Asp Ala Ile Arg His  
 180 185 190  
 Arg Ala Ile Cys Phe Asn Leu Ser Ala His Ile Glu Ser Leu Gly Lys  
 195 200 205  
 Gly His Ser Val Val Phe His Ser Thr Val Ile Ala Lys Arg Lys Glu  
 210 215 220  
 Asp Ser Gly Lys Ile Lys Leu Leu Leu His Trp Met Pro Glu Asp Ile  
 225 230 235 240  
 Leu Pro Asp Val Trp Val Asn Glu Ser Glu Arg His Gln Leu Lys Thr  
 245 250 255  
 Lys Val Val His Leu Ser Lys Leu Pro Lys Asp Thr Ala Leu Leu Leu

260	265	270
Asp Pro Asn Ile Tyr Arg Thr Met Pro Gln Lys Arg Leu Lys Arg Thr		
275	280	285
Leu Ile Arg Lys Val Phe Asn Leu Tyr Leu Ser Lys Gln		
290	295	300

<210> 4822

<211> 626

<212> PRT

<213> Homo sapiens

<400> 4822

Met Ala Val Ser Gly Phe Thr Leu Gly Thr Cys Ile Leu Leu Leu His			
1	5	10	15
Ile Ser Tyr Val Ala Asn Tyr Pro Asn Gly Lys Val Thr Gln Ser Cys			
20	25	30	
His Gly Met Ile Pro Glu His Gly His Ser Pro Gln Ser Val Pro Val			
35	40	45	
His Asp Ile Tyr Val Ser Gln Met Thr Phe Arg Pro Gly Asp Gln Ile			
50	55	60	
Glu Val Thr Leu Ser Gly His Pro Phe Lys Gly Phe Leu Leu Glu Ala			
65	70	75	80
Arg Asn Ala Glu Asp Leu Asn Gly Pro Pro Ile Gly Ser Phe Thr Leu			
85	90	95	
Ile Asp Ser Glu Val Ser Gln Leu Leu Thr Cys Glu Asp Ile Gln Gly			
100	105	110	
Ser Ala Val Ser His Arg Ser Ala Ser Lys Lys Thr Glu Ile Lys Val			
115	120	125	
Tyr Trp Asn Ala Pro Ser Ser Ala Pro Asn His Thr Gln Phe Leu Val			
130	135	140	
Thr Val Val Glu Lys Tyr Lys Ile Tyr Trp Val Lys Ile Pro Gly Pro			
145	150	155	160
Ile Ile Ser Gln Pro Asn Ala Phe Pro Phe Thr Thr Pro Lys Ala Thr			
165	170	175	
Val Val Leu Leu Pro Thr Leu Pro Pro Val Ser His Leu Thr Lys Pro			

180	185	190
Phe Ser Ala Ser Asp Cys Gly Asn Lys Lys Phe Cys Ile Arg Ser Pro		
195	200	205
Leu Asn Cys Asp Pro Glu Lys Glu Ala Ser Cys Val Phe Leu Ser Phe		
210	215	220
Thr Arg Asp Asp Gln Ser Val Met Val Glu Met Ser Gly Pro Ser Lys		
225	230	235
Gly Tyr Leu Ser Phe Ala Leu Ser His Asp Gln Trp Met Gly Asp Asp		
245	250	255
Asp Ala Tyr Leu Cys Ile His Glu Asp Gln Thr Val Tyr Ile Gln Pro		
260	265	270
Ser His Leu Thr Gly Arg Ser His Pro Val Met Asp Ser Arg Asp Thr		
275	280	285
Leu Glu Asp Met Ala Trp Arg Leu Ala Asp Gly Val Met Gln Cys Ser		
290	295	300
Phe Arg Arg Asn Ile Thr Leu Pro Gly Val Lys Asn Arg Phe Asp Leu		
305	310	315
Asn Thr Ser Tyr Tyr Ile Phe Leu Ala Asp Gly Ala Ala Asn Asp Gly		
325	330	335
Arg Ile Tyr Lys His Ser Gln Gln Pro Leu Ile Thr Tyr Glu Lys Tyr		
340	345	350
Asp Val Thr Asp Ser Pro Lys Asn Ile Gly Gly Ser His Ser Val Leu		
355	360	365
Leu Leu Lys Val His Gly Ala Leu Met Phe Val Ala Trp Met Thr Thr		
370	375	380
Val Ser Ile Gly Val Leu Val Ala Arg Phe Phe Lys Pro Val Trp Ser		
385	390	395
Lys Ala Phe Leu Leu Gly Glu Ala Ala Trp Phe Gln Val His Arg Met		
405	410	415
Leu Met Phe Thr Thr Val Leu Thr Cys Ile Ala Phe Val Met Pro		
420	425	430
Phe Ile Tyr Arg Gly Gly Trp Ser Arg His Ala Gly Tyr His Pro Tyr		
435	440	445
Leu Gly Cys Ile Val Met Thr Leu Ala Val Leu Gln Pro Leu Leu Ala		
450	455	460
Val Phe Arg Pro Pro Leu His Asp Pro Arg Arg Gln Met Phe Asn Trp		

465	470	475	480
Thr His Trp Ser Met Gly Thr Ala Ala Arg Ile Ile Ala Val Ala Ala			
485	490	495	
Met Phe Leu Gly Met Asp Leu Pro Gly Leu Asn Leu Pro Asp Ser Trp			
500	505	510	
Lys Thr Tyr Ala Met Thr Gly Phe Val Ala Trp His Val Gly Thr Glu			
515	520	525	
Val Val Leu Glu Leu Lys Tyr Trp Met Met Thr Glu Phe Arg Ser Phe			
530	535	540	
Ser His Leu Leu Gln Trp Lys Gln Arg Val Met Leu Leu Lys Arg Gln			
545	550	555	560
Cys Trp Gln Phe Met Ser Val Gly Met Leu Leu Phe Ser Ser Tyr Phe			
565	570	575	
Tyr Leu Gln Ser Thr Ile Tyr Glu Gln Ala Lys Thr Leu Ala Phe Ala			
580	585	590	
Gly Gln Val Ile Ile Ile Ile Lys Pro Lys Lys Leu Glu Ala Cys Pro			
595	600	605	
Asp Cys Leu Glu His Ile Cys Glu Phe Ser Leu Gly Arg Leu Gly Ser			
610	615	620	
Cys Leu			
625			

<210> 4823

<211> 827

<212> PRT

<213> Homo sapiens

<400> 4823

Met Ile Arg Arg Leu Lys Thr Glu Val Leu Thr Gln Leu Pro Pro Lys			
1	5	10	15
Val Arg Gln Arg Ile Pro Phe Asp Leu Pro Ser Ala Ala Ala Lys Glu			
20	25	30	
Leu Asn Thr Ser Phe Glu Glu Trp Glu Lys Ile Met Arg Thr Pro Asn			
35	40	45	
Ser Gly Ala Met Glu Thr Val Met Gly Leu Ile Thr Arg Met Phe Lys			

50	55	60
Gln Thr Ala Ile Ala Lys Ala Gly Ala Val Lys Asp Tyr Ile Lys Met		
65	70	75
Met Leu Gln Asn Asp Ser Leu Lys Phe Leu Val Phe Ala His His Leu		
85	90	95
Ser Met Leu Gln Ala Cys Thr Glu Ala Val Ile Glu Asn Lys Thr Arg		
100	105	110
Tyr Ile Arg Ile Asp Gly Ser Val Ser Ser Glu Arg Ile His Leu		
115	120	125
Val Asn Gln Phe Gln Lys Asp Pro Asp Thr Arg Val Ala Ile Leu Ser		
130	135	140
Ile Gln Ala Ala Gly Gln Gly Leu Thr Phe Thr Ala Ala Ser His Val		
145	150	155
Val Phe Ala Glu Leu Tyr Trp Asp Pro Gly His Ile Lys Gln Ala Glu		
165	170	175
Asp Arg Ala His Arg Ile Gly Gln Cys Ser Ser Val Asn Ile His Tyr		
180	185	190
Leu Ile Ala Asn Gly Thr Leu Asp Thr Leu Met Trp Gly Met Leu Asn		
195	200	205
Arg Lys Ala Gln Val Thr Gly Ser Thr Leu Asn Gly Arg Lys Glu Lys		
210	215	220
Ile Gln Ala Glu Glu Gly Asp Lys Glu Lys Trp Asp Phe Leu Gln Phe		
225	230	235
Ala Glu Ala Trp Thr Pro Asn Asp Ser Ser Glu Glu Leu Arg Lys Glu		
245	250	255
Ala Leu Phe Thr His Phe Glu Lys Glu Lys Gln His Asp Ile Arg Ser		
260	265	270
Phe Phe Val Pro Gln Pro Lys Lys Arg Gln Leu Met Thr Ser Cys Asp		
275	280	285
Glu Ser Lys Arg Phe Arg Glu Glu Asn Thr Val Val Ser Ser Asp Pro		
290	295	300
Thr Lys Thr Ala Ala Arg Asp Ile Ile Asp Tyr Glu Ser Asp Val Glu		
305	310	315
Pro Glu Thr Lys Arg Leu Lys Leu Ala Ala Ser Glu Asp His Cys Ser		
325	330	335
Pro Ser Glu Glu Thr Pro Ser Gln Ser Lys Gln Ile Arg Thr Pro Leu		

340	345	350
Val Glu Ser Val Gln Glu Ala Lys Ala Gln Leu Thr Thr Pro Ala Phe		
355	360	365
Pro Val Glu Gly Trp Gln Cys Ser Leu Cys Thr Tyr Ile Asn Asn Ser		
370	375	380
Glu Leu Pro Tyr Cys Glu Met Cys Glu Thr Pro Gln Gly Ser Ala Val		
385	390	395
Met Gln Ile Asp Ser Leu Asn His Ile Gln Asp Lys Asn Glu Lys Asp		
405	410	415
Asp Ser Gln Lys Asp Thr Ser Lys Lys Val Gln Thr Ile Ser Asp Cys		
420	425	430
Glu Lys Gln Ala Leu Ala Gln Ser Glu Pro Gly Gln Leu Ala Asp Ser		
435	440	445
Lys Glu Glu Thr Pro Lys Ile Glu Lys Glu Asp Gly Leu Thr Ser Gln		
450	455	460
Pro Gly Asn Glu Gln Trp Lys Ser Ser Asp Thr Leu Pro Val Tyr Asp		
465	470	475
Thr Leu Met Phe Cys Ala Ser Arg Asn Thr Asp Arg Ile His Ile Tyr		
485	490	495
Thr Lys Asp Gly Lys Gln Met Ser Cys Asn Phe Ile Pro Leu Asp Ile		
500	505	510
Lys Leu Asp Leu Trp Glu Asp Leu Pro Ala Ser Phe Gln Leu Lys Gln		
515	520	525
Tyr Arg Ser Leu Ile Leu Arg Phe Val Arg Glu Trp Ser Ser Leu Thr		
530	535	540
Ala Met Lys Gln Arg Ile Ile Arg Lys Ser Gln Leu Phe Cys Ser		
545	550	555
Pro Ile Leu Ala Leu Glu Glu Ile Thr Lys Gln Gln Thr Lys Gln Asn		
565	570	575
Cys Thr Lys Arg Tyr Ile Thr Lys Glu Asp Val Ala Val Ala Ser Met		
580	585	590
Asp Lys Ala Lys Asn Val Gly Gly His Val Arg Leu Ile Thr Lys Glu		
595	600	605
Ser Arg Pro Arg Asp Pro Phe Thr Lys Lys Leu Leu Glu Asp Gly Ala		
610	615	620
Cys Val Pro Phe Leu Asn Pro Tyr Thr Val Gln Ala Asp Leu Thr Val		

625	630	635	640
Lys Pro Ser Thr Ser Lys Gly Tyr Leu Gln Ala Val Asp Asn Glu Gly			
645	650	655	
Asn Pro Leu Cys Leu Arg Cys Gln Gln Pro Thr Cys Gln Thr Lys Gln			
660	665	670	
Ala Cys Lys Ala Asn Ser Trp Asp Ser Arg Phe Cys Ser Leu Lys Cys			
675	680	685	
Gln Glu Glu Phe Trp Ile Arg Ser Asn Asn Ser Tyr Leu Arg Ala Lys			
690	695	700	
Val Phe Glu Thr Glu His Gly Val Cys Gln Leu Cys Asn Val Asn Ala			
705	710	715	720
Gln Glu Leu Phe Leu Arg Leu Arg Asp Ala Pro Lys Ser Gln Arg Lys			
725	730	735	
Asn Leu Leu Tyr Ala Thr Trp Thr Ser Lys Leu Pro Leu Glu Gln Leu			
740	745	750	
Asn Glu Met Ile Arg Asn Pro Gly Glu Gly His Phe Trp Gln Val Asp			
755	760	765	
His Ile Lys Pro Val Tyr Gly Gly Gln Cys Ser Leu Asp Asn			
770	775	780	
Leu Gln Thr Leu Cys Thr Val Cys His Lys Glu Arg Thr Ala Arg Gln			
785	790	795	800
Ala Lys Glu Arg Ser Gln Val Arg Arg Gln Ser Leu Ala Ser Lys His			
805	810	815	
Gly Ser Asp Ile Thr Arg Phe Leu Val Lys Lys			
820	825		

<210> 4824

<211> 994

<212> PRT

<213> Homo sapiens

<400> 4824

Met Ser Gln Trp Thr Pro Glu Tyr Lys Glu Leu Tyr Thr Leu Lys Val			
1	5	10	15
Asp Met Lys Ser Glu Ile Pro Ser Asp Ala Pro Lys Thr Gln Glu Ser			

20	25	30
Leu Lys Gly Ile Leu Leu His Pro Glu Pro Ile Gly Ala Ala Lys Ser		
35	40	45
Phe Pro Ala Gly Val Glu Met Ile Asn Ser Lys Val Gly Asn Glu Phe		
50	55	60
Ser His Leu Cys Asp Asp Ser Gln Lys Gln Glu Lys Glu Met Asn Gly		
65	70	75
Asn Gln Gln Glu Gln Glu Lys Ser Leu Val Val Arg Lys Lys Arg Lys		
85	90	95
Ser Gln Gln Ala Gly Pro Ser Tyr Val Gln Asn Cys Val Lys Glu Asn		
100	105	110
Gln Gly Ile Leu Gly Leu Arg Gln His Leu Gly Thr Pro Ser Asp Glu		
115	120	125
Asp Asn Asp Ser Ser Phe Ser Asp Cys Leu Ser Ser Pro Ser Ser Ser		
130	135	140
Leu His Phe Gly Asp Ser Asp Thr Val Thr Ser Asp Glu Asp Lys Glu		
145	150	155
Val Ser Val Arg His Ser Gln Thr Ile Leu Asn Ala Lys Ser Arg Ser		
165	170	175
His Ser Ala Arg Ser His Lys Trp Pro Arg Thr Glu Thr Glu Ser Val		
180	185	190
Ser Gly Leu Leu Met Lys Arg Pro Cys Leu His Gly Ser Ser Leu Arg		
195	200	205
Arg Leu Pro Cys Arg Lys Arg Phe Val Lys Asn Asn Ser Ser Gln Arg		
210	215	220
Thr Gln Lys Gln Lys Glu Arg Ile Leu Met Gln Arg Lys Lys Arg Glu		
225	230	235
Val Leu Ala Arg Arg Lys Tyr Ala Leu Leu Pro Ser Ser Ser Ser Ser		
245	250	255
Ser Glu Asn Asp Leu Ser Ser Glu Ser Ser Ser Ser Ser Thr Glu		
260	265	270
Gly Glu Glu Asp Leu Phe Val Ser Ala Ser Glu Asn His Gln Asn Asn		
275	280	285
Pro Ala Val Pro Ser Gly Ser Ile Asp Glu Asp Val Val Val Ile Glu		
290	295	300

Ala Ser Ser Thr Pro Gln Val Thr Ala Asn Glu Glu Ile Asn Val Thr  
 305 310 315 320  
 Ser Thr Asp Ser Glu Val Glu Ile Val Thr Val Gly Glu Ser Tyr Arg  
 325 330 335  
 Ser Arg Ser Thr Leu Gly His Ser Arg Ser His Trp Ser Gln Gly Ser  
 340 345 350  
 Ser Ser His Ala Ser Arg Pro Gln Glu Pro Arg Asn Arg Ser Arg Ile  
 355 360 365  
 Ser Thr Val Ile Gln Pro Leu Arg Gln Asn Ala Ala Glu Val Val Asp  
 370 375 380  
 Leu Thr Val Asp Glu Asp Glu Pro Thr Val Val Pro Thr Thr Ser Ala  
 385 390 395 400  
 Arg Met Glu Ser Gln Ala Thr Ser Ala Ser Ile Asn Asn Ser Asn Pro  
 405 410 415  
 Ser Thr Ser Glu Gln Ala Ser Asp Thr Ala Ser Ala Val Thr Ser Ser  
 420 425 430  
 Gln Pro Ser Thr Val Ser Glu Thr Ser Ala Thr Leu Thr Ser Asn Ser  
 435 440 445  
 Thr Thr Gly Thr Ser Ile Gly Asp Asp Ser Arg Arg Thr Thr Ser Ser  
 450 455 460  
 Ala Val Thr Glu Thr Gly Pro Pro Ala Met Pro Arg Leu Pro Ser Cys  
 465 470 475 480  
 Cys Pro Gln His Ser Pro Cys Gly Gly Ser Ser Gln Asn His His Ala  
 485 490 495  
 Leu Gly His Pro His Thr Ser Cys Phe Gln Gln His Gly His His Phe  
 500 505 510  
 Gln His His His His His His Thr Pro His Pro Ala Val Pro Val  
 515 520 525  
 Ser Pro Ser Phe Ser Asp Pro Ala Cys Pro Val Glu Arg Pro Pro Gln  
 530 535 540  
 Val Gln Ala Pro Cys Gly Ala Asn Ser Ser Ser Gly Thr Ser Tyr His  
 545 550 555 560  
 Glu Gln Gln Ala Leu Pro Val Asp Leu Ser Asn Ser Gly Ile Arg Ser  
 565 570 575  
 His Gly Ser Gly Ser Phe His Gly Ala Ser Ala Phe Asp Pro Cys Cys  
 580 585 590

Pro Val Ser Ser Ser Arg Ala Ala Ile Phe Gly His Gln Ala Ala Ala  
 595 600 605  
 Ala Ala Pro Ser Gln Pro Leu Ser Ser Ile Asp Gly Tyr Gly Ser Ser  
 610 615 620  
 Met Val Ala Gln Pro Gln Pro Gln Pro Pro Gln Pro Ser Leu Ser  
 625 630 635 640  
 Ser Cys Arg His Tyr Met Pro Pro Pro Tyr Ala Ser Leu Thr Arg Pro  
 645 650 655  
 Leu His His Gln Ala Ser Ala Cys Pro His Ser His Gly Asn Pro Pro  
 660 665 670  
 Pro Gln Thr Gln Pro Pro Pro Gln Val Asp Tyr Val Ile Pro His Pro  
 675 680 685  
 Val His Ala Phe His Ser Gln Ile Ser Ser His Ala Thr Ser His Pro  
 690 695 700  
 Val Ala Pro Pro Pro Pro Thr His Leu Ala Ser Thr Ala Ala Pro Ile  
 705 710 715 720  
 Pro Gln His Leu Pro Pro Thr His Gln Pro Ile Ser His His Ile Pro  
 725 730 735  
 Ala Thr Ala Pro Pro Ala Gln Arg Leu His Pro His Glu Val Met Gln  
 740 745 750  
 Arg Met Glu Val Gln Arg Arg Arg Met Met Gln His Pro Thr Arg Ala  
 755 760 765  
 His Glu Arg Pro Pro Pro His Pro His Arg Met His Pro Asn Tyr Gly  
 770 775 780  
 His Gly His His Ile His Val Pro Gln Thr Met Ser Ser His Pro Arg  
 785 790 795 800  
 Gln Ala Pro Glu Arg Ser Ala Trp Glu Leu Gly Ile Glu Ala Gly Val  
 805 810 815  
 Thr Ala Ala Thr Tyr Thr Pro Gly Ala Leu His Pro His Leu Ala His  
 820 825 830  
 Tyr His Ala Pro Pro Arg Leu His His Leu Gln Leu Gly Ala Leu Pro  
 835 840 845  
 Leu Met Val Pro Asp Met Ala Gly Tyr Pro His Ile Arg Tyr Ile Ser  
 850 855 860  
 Ser Gly Leu Asp Gly Thr Ser Phe Arg Gly Pro Phe Arg Gly Asn Phe  
 865 870 875 880

<210> 4825

211 105

<212> PRT

〈213〉 *Homo sapiens*

〈400〉 4825

Met	Glu	Gln	Ser	Trp	Thr	Glu	Asn	Asp	Phe	Asp	Glu	Leu	Arg	Glu	Glu
1				5						10				15	
Gly	Phe	Arg	Arg	Ser	Asn	Tyr	Glu	Leu	Gln	Glu	Glu	Ile	Gln	Ile	Lys
						20				25				30	
Gly	Lys	Glu	Val	Lys	Asn	Phe	Glu	Lys	Asn	Leu	Asp	Glu	Cys	Ile	Thr
							35			40				45	
Arg	Ile	Thr	Asn	Thr	Glu	Lys	Cys	Leu	Glu	Asp	Leu	Met	Glu	Leu	Lys
							50			55			60		
Ala	Lys	Ala	Arg	Glu	Leu	Cys	Glu	Glu	Cys	Arg	Ser	Leu	Arg	Ser	Arg
							65			70			75		80
Cys	Asp	Gln	Leu	Glu	Glu	Arg	Val	Ser	Val	Met	Glu	Asp	Glu	Met	Asn
										85			90		95

Glu Met Lys Gln Glu Gly Lys Phe Arg  
 100 105

<210> 4826

<211> 136

<212> PRT

<213> Homo sapiens

<400> 4826

Met Trp Leu Glu Val Arg Ala Leu Leu Leu Ser Cys Val Arg Val Phe  
 1 5 10 15  
 Gln His Gly Thr Asp Gly Ser Ser Gly His Ser Leu Ser Gln Gly Leu  
 20 25 30  
 Ala Arg Leu Arg His Asp Gly Pro Ser Pro Ala Leu Thr Thr Thr Lys  
 35 40 45  
 Ser Gly Arg Val Glu Phe Ala Val Asn Ser Ala Val Pro Met Glu Thr  
 50 55 60  
 Cys Val Val Ser Glu Gln Gln Tyr Leu Leu Glu Leu Val Gln Thr Pro  
 65 70 75 80  
 Arg Leu Pro Ser Gly Thr Thr Trp Ser Thr Ser Pro Arg Glu Ala Ala  
 85 90 95  
 Ala Leu Arg Gly Cys Pro Ala Gln Trp Pro Leu Ser Arg Val Ser Leu  
 100 105 110  
 Gln Glu Ala Ser Glu Gln Ser Leu Lys Pro Gly Met Ala Pro Ser Pro  
 115 120 125  
 Cys Cys His His Cys Val Leu Thr  
 130 135

<210> 4827

<211> 250

<212> PRT

<213> Homo sapiens

<400> 4827

Met Ala Glu Gly Gly Ala Ser Lys Gly Gly Gly Glu Glu Pro Gly Lys  
 1 5 10 15  
 Leu Pro Glu Pro Ala Glu Glu Glu Ser Gln Val Leu Arg Gly Thr Gly  
 20 25 30  
 His Cys Lys Trp Phe Asn Val Arg Met Gly Phe Gly Phe Ile Ser Met  
 35 40 45  
 Ile Asn Arg Glu Gly Ser Pro Leu Asp Ile Pro Val Asp Val Phe Val  
 50 55 60  
 His Gln Ser Lys Leu Phe Met Glu Gly Phe Arg Ser Leu Lys Glu Gly  
 65 70 75 80  
 Glu Pro Val Glu Phe Thr Phe Lys Lys Ser Ser Lys Gly Leu Glu Ser  
 85 90 95  
 Ile Arg Val Thr Gly Pro Gly Gly Ser Pro Cys Leu Gly Ser Glu Arg  
 100 105 110  
 Arg Pro Lys Gly Lys Thr Leu Gln Lys Arg Lys Pro Lys Gly Asp Arg  
 115 120 125  
 Cys Tyr Asn Cys Gly Gly Leu Asp His His Ala Lys Glu Cys Ser Leu  
 130 135 140  
 Pro Pro Gln Pro Lys Lys Cys His Tyr Cys Gln Ser Ile Met His Met  
 145 150 155 160  
 Val Ala Asn Cys Pro His Lys Asn Val Ala Gln Pro Pro Ala Ser Ser  
 165 170 175  
 Gln Gly Arg Gln Glu Ala Glu Ser Gln Pro Cys Thr Ser Thr Leu Pro  
 180 185 190  
 Arg Glu Val Gly Gly His Gly Cys Thr Ser Pro Pro Phe Pro Gln  
 195 200 205  
 Glu Ala Arg Ala Glu Ile Ser Glu Arg Ser Gly Arg Ser Pro Gln Glu  
 210 215 220  
 Ala Ser Ser Thr Lys Ser Ser Ile Ala Pro Glu Glu Gln Ser Lys Lys  
 225 230 235 240  
 Gly Pro Ser Val Gln Lys Arg Lys Lys Thr  
 245 250

&lt;210&gt; 4828

&lt;211&gt; 748

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4828

Met	Lys	Gln	Met	His	Glu	Trp	Asn	Phe	Thr	Ala	Ser	Ser	Ile	Lys	Gly
1			5					10					15		
Ile	Ser	Leu	Ser	Lys	Phe	Asp	Glu	Arg	Cys	Cys	Phe	Leu	Tyr	Val	His
	20				25						30				
Asp	Asn	Ser	Asp	Asp	Phe	Gln	Ile	Tyr	Phe	Ser	Thr	Glu	Glu	Gln	Cys
	35			40						45					
Ser	Arg	Phe	Phe	Ser	Leu	Val	Lys	Glu	Met	Ile	Thr	Asn	Thr	Ala	Gly
	50			55					60						
Ser	Thr	Val	Glu	Leu	Glu	Gly	Glu	Thr	Asp	Gly	Asp	Thr	Leu	Glu	Tyr
	65		70			75						80			
Glu	Tyr	Asp	His	Asp	Ala	Asn	Gly	Glu	Arg	Val	Val	Leu	Gly	Lys	Gly
	85			90						95					
Thr	Tyr	Gly	Ile	Val	Tyr	Ala	Gly	Arg	Asp	Leu	Ser	Asn	Gln	Val	Arg
	100			105					110						
Ile	Ala	Ile	Lys	Glu	Ile	Pro	Glu	Arg	Asp	Ser	Arg	Tyr	Ser	Gln	Pro
	115			120					125						
Leu	His	Glu	Glu	Ile	Ala	Leu	His	Lys	Tyr	Leu	Lys	His	Arg	Asn	Ile
	130			135					140						
Val	Gln	Tyr	Leu	Gly	Ser	Val	Ser	Glu	Asn	Gly	Tyr	Ile	Lys	Ile	Phe
	145			150				155				160			
Met	Glu	Gln	Val	Pro	Gly	Gly	Ser	Leu	Ser	Ala	Leu	Leu	Arg	Ser	Lys
	165			170				175							
Trp	Gly	Pro	Met	Lys	Glu	Pro	Thr	Ile	Lys	Phe	Tyr	Thr	Lys	Gln	Ile
	180			185				190							
Leu	Glu	Gly	Leu	Lys	Tyr	Leu	His	Glu	Asn	Gln	Ile	Val	His	Arg	Asp
	195			200				205							
Ile	Lys	Gly	Asp	Asn	Val	Leu	Val	Asn	Thr	Tyr	Ser	Gly	Val	Val	Lys
	210			215				220							
Ile	Ser	Asp	Phe	Gly	Thr	Ser	Lys	Arg	Leu	Ala	Gly	Val	Asn	Pro	Cys
	225			230				235				240			
Thr	Glu	Thr	Phe	Thr	Gly	Thr	Leu	Gln	Tyr	Met	Ala	Pro	Glu	Ile	Ile
	245			250				255							

Asp Gln Gly Pro Arg Gly Tyr Gly Ala Pro Ala Asp Ile Trp Ser Leu  
 260 265 270  
 Gly Cys Thr Ile Ile Glu Met Ala Thr Ser Lys Pro Pro Phe His Glu  
 275 280 285  
 Leu Gly Glu Pro Gln Ala Ala Met Phe Lys Val Gly Met Phe Lys Ile  
 290 295 300  
 His Pro Glu Ile Pro Glu Ala Leu Ser Ala Glu Ala Arg Ala Phe Ile  
 305 310 315 320  
 Leu Ser Cys Phe Glu Pro Asp Pro His Lys Arg Ala Thr Thr Ala Glu  
 325 330 335  
 Leu Leu Arg Glu Gly Phe Leu Arg Gln Val Asn Lys Gly Lys Lys Asn  
 340 345 350  
 Arg Ile Ala Phe Lys Pro Ser Glu Gly Pro Arg Gly Val Val Leu Ala  
 355 360 365  
 Leu Pro Thr Gln Gly Glu Pro Met Ala Thr Ser Ser Glu His Gly  
 370 375 380  
 Ser Val Ser Pro Asp Ser Asp Ala Gln Pro Asp Ala Leu Phe Glu Arg  
 385 390 395 400  
 Thr Arg Ala Pro Arg His His Leu Gly His Leu Leu Ser Val Pro Asp  
 405 410 415  
 Glu Ser Ser Ala Leu Glu Asp Arg Gly Leu Ala Ser Ser Pro Glu Asp  
 420 425 430  
 Arg Asp Gln Gly Leu Phe Leu Leu Arg Lys Asp Ser Glu Arg Arg Ala  
 435 440 445  
 Ile Leu Tyr Lys Ile Leu Trp Glu Glu Gln Asn Gln Val Ala Ser Asn  
 450 455 460  
 Leu Gln Glu Cys Val Ala Gln Ser Ser Glu Glu Leu His Leu Ser Val  
 465 470 475 480  
 Gly His Ile Lys Gln Ile Ile Gly Ile Leu Arg Asp Phe Ile Arg Ser  
 485 490 495  
 Pro Glu His Arg Val Met Ala Thr Thr Ile Ser Lys Leu Lys Val Asp  
 500 505 510  
 Leu Asp Phe Asp Ser Ser Ser Ile Ser Gln Ile His Leu Val Leu Phe  
 515 520 525  
 Gly Phe Gln Asp Ala Val Asn Lys Ile Leu Arg Asn His Leu Ile Arg

530	535	540
Pro His Trp Met Phe Ala Met Asp Asn Ile Ile Arg Arg Ala Val Gln		
545	550	555
Ala Ala Val Thr Ile Leu Ile Pro Glu Leu Arg Ala His Phe Glu Pro		
565	570	575
Thr Cys Glu Thr Glu Gly Val Asp Lys Asp Met Asp Glu Ala Glu Glu		
580	585	590
Gly Tyr Pro Pro Ala Thr Gly Pro Gly Gln Glu Ala Gln Pro His Gln		
595	600	605
Gln His Leu Ser Leu Gln Leu Gly Glu Leu Arg Gln Glu Thr Asn Arg		
610	615	620
Leu Leu Glu His Leu Val Glu Lys Glu Arg Glu Tyr Gln Asn Leu Leu		
625	630	635
Arg Gln Thr Leu Glu Gln Lys Thr Gln Glu Leu Tyr His Leu Gln Leu		
645	650	655
Lys Leu Lys Ser Asn Cys Ile Thr Glu Asn Pro Ala Gly Pro Tyr Gly		
660	665	670
Gln Arg Thr Asp Lys Glu Leu Ile Asp Trp Leu Arg Leu Gln Gly Ala		
675	680	685
Asp Ala Lys Thr Ile Glu Lys Ile Val Glu Glu Gly Tyr Thr Leu Ser		
690	695	700
Asp Ile Leu Asn Glu Ile Thr Lys Glu Asp Leu Arg Tyr Leu Arg Leu		
705	710	715
Arg Gly Gly Leu Leu Cys Arg Leu Trp Ser Ala Val Ser Gln Tyr Arg		
725	730	735
Arg Ala Gln Glu Ala Ser Glu Thr Lys Asp Lys Ala		
740	745	

<210> 4829

<211> 572

<212> PRT

<213> Homo sapiens

<400> 4829

Met Cys His Phe Lys Leu Val Ala Ile Val Gly Tyr Leu Ile Arg Leu

1	5	10	15
Ser Ile Lys Ser Ile Gln Ile Glu Ala Asp Asn Cys Val Thr Asp Ser			
20	25	30	
Leu Thr Ile Tyr Asp Ser Leu Leu Pro Ile Arg Ser Ser Ile Leu Tyr			
35	40	45	
Arg Ile Cys Glu Pro Thr Arg Thr Leu Met Ser Phe Val Ser Thr Asn			
50	55	60	
Asn Leu Met Leu Val Thr Phe Lys Ser Pro His Ile Arg Arg Leu Ser			
65	70	75	80
Gly Ile Arg Ala Tyr Phe Glu Val Ile Pro Glu Gln Lys Cys Glu Asn			
85	90	95	
Thr Val Leu Val Lys Asp Ile Thr Gly Phe Glu Gly Lys Ile Ser Ser			
100	105	110	
Pro Tyr Tyr Pro Ser Tyr Tyr Pro Pro Lys Cys Lys Cys Thr Trp Lys			
115	120	125	
Phe Gln Thr Ser Leu Ser Thr Leu Gly Ile Ala Leu Lys Phe Tyr Asn			
130	135	140	
Tyr Ser Ile Thr Lys Lys Ser Met Lys Gly Cys Glu His Gly Trp Trp			
145	150	155	160
Glu Ile Asn Glu His Met Tyr Cys Gly Ser Tyr Met Asp His Gln Thr			
165	170	175	
Ile Phe Arg Val Pro Ser Pro Leu Val His Ile Gln Leu Gln Cys Ser			
180	185	190	
Ser Arg Leu Ser Asp Lys Pro Leu Leu Ala Glu Tyr Gly Ser Tyr Asn			
195	200	205	
Ile Ser Gln Pro Cys Pro Val Gly Ser Phe Arg Cys Ser Ser Gly Leu			
210	215	220	
Cys Val Pro Gln Ala Gln Arg Cys Asp Gly Val Asn Asp Cys Phe Asp			
225	230	235	240
Glu Ser Asp Glu Leu Phe Cys Val Ser Pro Gln Pro Ala Cys Asn Thr			
245	250	255	
Ser Ser Phe Arg Gln His Gly Pro Leu Ile Cys Asp Gly Phe Arg Asp			
260	265	270	
Cys Glu Asn Gly Arg Asp Glu Gln Asn Cys Thr Gln Ser Ile Pro Cys			
275	280	285	
Asn Asn Arg Thr Phe Lys Cys Gly Asn Asp Ile Cys Phe Arg Lys Gln			

290	295	300	
Asn Ala Lys Cys Asp Gly Thr Val Asp Cys Pro Asp Gly Ser Asp Glu			
305	310	315	320
Glu Gly Cys Thr Cys Ser Arg Ser Ser Ser Ala Leu His Arg Ile Ile			
325	330	335	
Gly Gly Thr Asp Thr Leu Glu Gly Gly Trp Pro Trp Gln Val Ser Leu			
340	345	350	
His Phe Val Gly Ser Ala Tyr Cys Gly Ala Ser Val Ile Ser Arg Glu			
355	360	365	
Trp Leu Leu Ser Ala Ala His Cys Phe His Gly Asn Arg Leu Ser Asp			
370	375	380	
Pro Thr Pro Trp Thr Ala His Leu Gly Met Tyr Val Gln Gly Asn Ala			
385	390	395	400
Lys Phe Val Ser Pro Val Arg Arg Ile Val Val His Glu Tyr Tyr Asn			
405	410	415	
Ser Gln Thr Phe Asp Tyr Asp Ile Ala Leu Leu Gln Leu Ser Ile Ala			
420	425	430	
Trp Pro Glu Thr Leu Lys Gln Leu Ile Gln Pro Ile Cys Ile Pro Pro			
435	440	445	
Thr Gly Gln Arg Val Arg Ser Gly Glu Lys Cys Trp Val Thr Gly Trp			
450	455	460	
Gly Arg Arg His Glu Ala Asp Asn Lys Gly Ser Leu Val Leu Gln Gln			
465	470	475	480
Ala Glu Val Glu Leu Ile Asp Gln Thr Leu Cys Val Ser Thr Tyr Gly			
485	490	495	
Ile Ile Thr Ser Arg Met Leu Cys Ala Gly Ile Met Ser Gly Lys Arg			
500	505	510	
Asp Ala Cys Lys Gly Asp Ser Gly Gly Pro Leu Ser Cys Arg Arg Lys			
515	520	525	
Ser Asp Gly Lys Trp Ile Leu Thr Gly Ile Val Ser Trp Gly His Gly			
530	535	540	
Cys Gly Arg Pro Asn Phe Pro Gly Val Tyr Thr Arg Val Ser Asn Phe			
545	550	555	560
Val Pro Trp Ile His Lys Tyr Val Pro Ser Leu Leu			
565	570		

&lt;210&gt; 4830

&lt;211&gt; 134

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4830

Met	Val	Gly	Leu	Leu	Phe	His	Ala	Pro	Lys	Ala	Pro				
1												15			
Leu	Arg	Cys	Cys	Ile	Met	Asn	Lys	Ile	Ile	Met	Val	Arg	Arg	Pro	Lys
				20				25				30			
Gln	Ser	Thr	Ala	Asp	Tyr	Gly	Met	Arg	Thr	Ser	Gly	Pro	Val	Glu	Ser
							35		40			45			
Gly	Leu	Ser	Ala	Asp	Ser	Leu	Gln	Leu	Leu	Cys	Ser	Tyr	Ala	Ala	Ile
	50					55			60						
Lys	Asn	Ser	Ala	Glu	Leu	Leu	Met	Val	Gly	Pro	Gln	Gly	Met	Arg	Pro
	65				70				75			80			
Ala	Thr	Gly	Gln	Asp	Leu	Leu	Cys	Arg	Pro	Cys	Leu	Ser	His	Asp	Leu
					85			90				95			
Pro	Gly	Pro	Leu	His	Pro	Pro	Arg	Gly	Leu	Ser	Gly	Ser	Ser	Ser	Leu
			100			105					110				
Leu	Ile	Ser	Pro	Arg	Leu	Gln	Asp	Val	Ser	Leu	Gln	Leu	Val	His	Pro
	115					120			125						
Thr	Pro	Glu	Glu	Ser	Phe										
	130														

&lt;210&gt; 4831

&lt;211&gt; 184

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4831

Met	Pro	Phe	Arg	Lys	Ala	Cys	Gly	Pro	Lys	Leu	Thr	Asn	Ser	Pro	Thr
1								5							15
Val	Ile	Val	Met	Val	Gly	Leu	Pro	Ala	Arg	Gly	Lys	Thr	Tyr	Ile	Ser

20	25	30	
Lys Lys Leu Thr Arg Tyr Leu Tyr Trp Ile Gly Val Pro Thr Lys Val			
35	40	45	
Phe Asn Val Gly Glu Tyr Arg Arg Glu Ala Val Lys Gln Tyr Ser Ser			
50	55	60	
Tyr Asn Phe Phe Arg Pro Asp Asn Glu Glu Ala Met Lys Val Arg Lys			
65	70	75	80
Gln Cys Ala Leu Ala Ala Leu Arg Asp Val Lys Ser Tyr Leu Ala Lys			
85	90	95	
Glu Gly Gly Gln Ile Ala Val Phe Asp Ala Thr Asn Thr Thr Arg Glu			
100	105	110	
Arg Arg His Met Ile Leu His Phe Ala Lys Glu Asn Asp Phe Lys Ala			
115	120	125	
Phe Phe Ile Glu Ser Val Cys Asp Asp Pro Thr Val Val Ala Ser Asn			
130	135	140	
Ile Met Gln Lys Ala Phe Gln Arg Asp Leu Ser Ala Thr Pro Leu Trp			
145	150	155	160
Cys Cys Arg Lys Leu Lys Ser Pro Ala Arg Ile Thr Lys Thr Ala Thr			
165	170	175	
Arg Gln Lys Pro Trp Thr Thr Ser			
180			

<210> 4832

<211> 493

<212> PRT

<213> Homo sapiens

<400> 4832

Met Gly Pro Thr Ser Val Leu Arg Ala Gly Leu Thr Pro Ser Cys Leu			
1	5	10	15
Pro Pro Pro Ser Gly Ala Thr Asn Gly Ser Val Ser Pro Leu Gly Arg			
20	25	30	
Ala Gln Arg Val Trp Thr Glu Pro Gly Gly Arg Gly Leu His Gly Ala			
35	40	45	
Thr Ala Ala Gly Pro Val Ala Ala Ala Cys Pro Leu Leu Ala Val Thr			

50	55	60
Ala Thr Ala Pro Gly Gln Pro Ser Gly Ala Ser Thr Val Trp Val Arg		
65	70	75
Glu Gly Gly Thr Ala Pro Ala Thr Arg Met Thr Val Pro Leu Ala Pro		
85	90	95
Arg Thr Ser Glu Lys Cys Ser Val Leu Asn Leu Thr Ala Ser Leu Ser		
100	105	110
Val Gly Asn Ser Thr Ser Gly Lys Arg Thr Gly Glu Ala Cys Ser Leu		
115	120	125
Thr Cys Leu Ala Glu Gly Phe Asn Phe Tyr Thr Glu Arg Ala Ala Ala		
130	135	140
Val Val Asp Gly Thr Pro Cys Arg Pro Asp Thr Val Asp Ile Cys Val		
145	150	155
Ser Gly Glu Cys Lys His Val Gly Cys Asp Arg Val Leu Gly Ser Asp		
165	170	175
Leu Arg Glu Asp Lys Cys Arg Val Cys Gly Gly Asp Gly Ser Ala Cys		
180	185	190
Glu Thr Ile Glu Gly Val Phe Ser Pro Ala Ser Pro Gly Ala Gly Tyr		
195	200	205
Glu Asp Val Val Trp Ile Pro Lys Gly Ser Val His Ile Phe Ile Gln		
210	215	220
Asp Leu Asn Leu Ser Leu Asn His Leu Ala Leu Lys Gly Asp Gln Glu		
225	230	235
Ser Leu Leu Leu Glu Gly Leu Pro Gly Thr Pro Gln Pro His Arg Leu		
245	250	255
Pro Leu Ala Gly Thr Thr Phe Gln Leu Arg Gln Gly Pro Asp Gln Val		
260	265	270
Gln Ser Leu Glu Ala Leu Gly Pro Ile Asn Ala Ser Leu Ile Val Met		
275	280	285
Val Leu Ala Arg Thr Glu Leu Pro Ala Leu Arg Tyr Arg Phe Asn Ala		
290	295	300
Pro Ile Ala Arg Asp Ser Leu Pro Pro Tyr Ser Trp His Tyr Ala Pro		
305	310	315
Trp Thr Arg Cys Ser Ala Gln Cys Ala Gly Gly Ser Gln Val Gln Ala		
325	330	335

Val Glu Cys Arg Asn Gln Leu Asp Gly Ser Ala Val Ala Pro His Tyr  
                  340                 345                 350  
 Cys Ser Ala His Ser Lys Leu Pro Lys Arg Gln Arg Ala Cys Asn Thr  
                  355                 360                 365  
 Glu Pro Cys Pro Pro Asp Trp Val Val Gly Asn Trp Ser Leu Cys Ser  
                  370                 375                 380  
 Arg Ser Cys Asp Ala Gly Val Arg Ser Arg Ser Val Val Cys Gln Arg  
                  385                 390                 395                 400  
 Arg Val Ser Ala Ala Glu Glu Lys Ala Leu Asp Asp Ser Ala Cys Pro  
                  405                 410                 415  
 Gln Pro Arg Pro Pro Val Leu Glu Ala Cys His Gly Pro Thr Cys Pro  
                  420                 425                 430  
 Pro Glu Trp Ala Ala Leu Asp Trp Ser Glu Cys Thr Pro Ser Cys Gly  
                  435                 440                 445  
 Pro Gly Leu Arg His Arg Val Val Leu Cys Lys Ser Ala Asp His Arg  
                  450                 455                 460  
 Ala Thr Leu Pro Pro Ala His Cys Ser Pro Ala Ala Lys Pro Pro Ala  
                  465                 470                 475                 480  
 Thr Met Arg Cys Asn Leu Arg Arg Cys Pro Pro Ala Arg  
                  485                 490

<210> 4833

<211> 803

<212> PRT

<213> Homo sapiens

<400> 4833

Met Ile Ser Ala Gln Cys Asn Leu Cys Leu Pro Gly Ser Gly Asp Ser  
          1                 5                 10                 15  
 Cys Ala Ser Gly Ser Gln Leu Ala Gly Thr Thr Val Ala Gly Pro Ala  
          20                 25                 30  
 His Pro Glu Ser Leu Thr Leu Cys Ser Gly Glu Ala Glu Arg Arg Gly  
          35                 40                 45  
 Lys Glu Glu Trp Pro Asp Ser His His Tyr Pro Gly Pro Thr Pro Ala  
          50                 55                 60

Pro Glu Ser Ser Asp Gly Pro His Lys Val Thr Val Leu Ala Thr Met  
 65 70 . 75 80  
 Leu Ser Ser Arg Trp Trp Pro Ser Ser Trp Gly Ile Leu Gly Leu Gly  
 85 90 95  
 Pro Arg Ser Pro Pro Arg Gly Ser Gln Leu Cys Ala Leu Tyr Ala Phe  
 100 105 110  
 Thr Tyr Thr Gly Ala Asp Gly Gln Gln Val Ser Leu Ala Glu Gly Asp  
 115 120 125  
 Arg Phe Leu Leu Leu Arg Lys Thr Asn Ser Asp Trp Trp Leu Ala Arg  
 130 135 140  
 Arg Leu Glu Ala Pro Ser Thr Ser Arg Pro Ile Phe Val Pro Ala Ala  
 145 150 155 160  
 Tyr Met Ile Glu Glu Ser Ile Pro Ser Gln Ser Pro Thr Thr Val Ile  
 165 170 175  
 Pro Gly Gln Leu Leu Trp Thr Pro Gly Pro Lys Leu Phe His Gly Ser  
 180 185 190  
 Leu Glu Glu Leu Ser Gln Ala Leu Pro Ser Arg Ala Gln Ala Ser Ser  
 195 200 205  
 Glu Gln Pro Pro Leu Pro Arg Lys Met Cys Arg Ser Val Ser Thr  
 210 215 220  
 Asp Asn Leu Ser Pro Ser Leu Leu Lys Pro Phe Gln Glu Gly Pro Ser  
 225 230 235 240  
 Gly Arg Ser Leu Ser Gln Glu Asn Leu Pro Pro Glu Ala Ser Ala Ser  
 245 250 255  
 Thr Ala Gly Pro Gln Pro Leu Met Ser Glu Pro Pro Val Tyr Cys Asn  
 260 265 270  
 Leu Val Asp Leu Arg Arg Cys Pro Arg Ser Pro Pro Pro Gly Pro Ala  
 275 280 285  
 Cys Pro Leu Leu Gln Arg Pro Asp Ala Trp Glu Gln His Leu Asp Pro  
 290 295 300  
 Asn Ser Gly Arg Cys Phe Tyr Ile Asn Ser Leu Thr Gly Cys Lys Ser  
 305 310 315 320  
 Trp Lys Pro Pro Arg Arg Ser Arg Ser Glu Thr Asn Pro Gly Ser Met  
 325 330 335  
 Glu Gly Thr Gln Thr Leu Lys Arg Asn Asn Asp Val Leu Gln Pro Gln  
 340 345 350

Ala Lys Gly Phe Arg Ser Asp Thr Gly Thr Pro Glu Pro Leu Asp Pro  
 355 360 365  
 Gln Gly Ser Leu Ser Leu Ser Gln Arg Thr Ser Gln Leu Asp Pro Pro  
 370 375 380  
 Ala Leu Gln Ala Pro Arg Pro Leu Pro Gln Leu Leu Asp Asp Pro His  
 385 390 395 400  
 Glu Val Glu Lys Ser Gly Leu Leu Asn Met Thr Lys Ile Ala Gln Gly  
 405 410 415  
 Gly Arg Lys Leu Arg Lys Asn Trp Gly Pro Ser Trp Val Val Leu Thr  
 420 425 430  
 Gly Asn Ser Leu Val Phe Tyr Arg Glu Pro Pro Pro Thr Ala Pro Ser  
 435 440 445  
 Ala Gly Trp Gly Pro Ala Gly Ser Arg Pro Glu Ser Ser Val Asp Leu  
 450 455 460  
 Arg Gly Ala Ala Leu Ala His Gly Arg His Leu Ser Ser Arg Arg Asn  
 465 470 475 480  
 Val Leu His Ile Arg Thr Ile Pro Gly His Glu Phe Leu Leu Gln Ser  
 485 490 495  
 Asp His Glu Thr Glu Leu Arg Ala Trp His Arg Ala Leu Arg Thr Val  
 500 505 510  
 Ile Glu Arg Leu Asp Arg Glu Asn Pro Leu Glu Leu Arg Leu Ser Gly  
 515 520 525  
 Ser Gly Pro Ala Glu Leu Ser Ala Gly Glu Asp Glu Glu Glu Ser  
 530 535 540  
 Glu Leu Val Ser Lys Pro Leu Leu Arg Leu Ser Ser Arg Arg Ser Ser  
 545 550 555 560  
 Ile Arg Gly Pro Glu Gly Thr Glu Gln Asn Arg Val Arg Asn Lys Leu  
 565 570 575  
 Lys Arg Leu Ile Ala Lys Arg Pro Pro Leu Gln Ser Leu Gln Glu Arg  
 580 585 590  
 Gly Leu Leu Arg Asp Gln Val Phe Gly Cys Gln Leu Glu Ser Leu Cys  
 595 600 605  
 Gln Arg Glu Gly Asp Thr Val Pro Ser Phe Leu Arg Leu Cys Ile Ala  
 610 615 620  
 Ala Val Asp Lys Arg Gly Leu Asp Val Asp Gly Ile Tyr Arg Val Ser  
 625 630 635 640

Gly Asn Leu Ala Val Val Gln Lys Leu Arg Phe Leu Val Asp Arg Glu  
 645 650 655  
 Arg Ala Val Thr Ser Asp Gly Arg Tyr Val Phe Pro Glu Gln Pro Gly  
 660 665 670  
 Gln Glu Gly Arg Leu Asp Leu Asp Ser Thr Glu Trp Asp Asp Ile His  
 675 680 685  
 Val Val Thr Gly Ala Leu Lys Leu Phe Leu Arg Glu Leu Pro Gln Pro  
 690 695 700  
 Leu Val Pro Pro Leu Leu Leu Pro His Phe Arg Ala Ala Leu Ala Leu  
 705 710 715 720  
 Ser Gln Ile Gln Glu Leu Ile Gly Ser Met Pro Lys Pro Asn His Asp  
 725 730 735  
 Thr Leu Arg Tyr Leu Leu Glu His Leu Cys Arg Val Ile Ala His Ser  
 740 745 750  
 Asp Lys Asn Arg Met Thr Pro His Asn Leu Gly Ile Val Phe Gly Pro  
 755 760 765  
 Thr Leu Phe Arg Pro Glu Gln Glu Thr Ser Asp Pro Ala Ala His Ala  
 770 775 780  
 Leu Tyr Pro Gly Gln Leu Val Gln Leu Met Leu Thr Asn Phe Thr Ser  
 785 790 795 800  
 Leu Phe Pro

<210> 4834

<211> 892

<212> PRT

<213> Homo sapiens

<400> 4834

Met Gln Asp Leu Lys Lys Tyr Lys Lys Lys Lys Gln Lys Arg Met Lys  
 1 5 10 15  
 Ser Arg Lys Val Arg Lys Pro Thr Glu Asn Gln Glu Lys Asn Ile Arg  
 20 25 30  
 Lys Arg Glu Arg Arg Lys Lys Ser Lys Arg Arg Lys Arg Glu Lys His  
 35 40 45

Lys His Asn Ser Pro Ser Ser Asp Asp Ser Ser Asp Tyr Ser Leu Asp  
 50 55 60  
 Ser Asp Val Glu His Thr Glu Ser Ser His Lys Lys Arg Thr Gly Phe  
 65 70 75 80  
 Tyr Arg Asp Tyr Asp Ile Pro Phe Thr Gln Arg Gly His Ile Ser Gly  
 85 90 95  
 Ser Tyr Ile Thr Ser Lys Lys Gly Gln His Asn Lys Lys Phe Lys Ser  
 100 105 110  
 Lys Glu Tyr Asp Glu Tyr Ser Thr Tyr Ser Asp Asp Asn Phe Gly Asn  
 115 120 125  
 Tyr Ser Asp Asp Asn Phe Gly Asn Tyr Gly Gln Glu Thr Glu Glu Asp  
 130 135 140  
 Phe Ala Asn Gln Leu Lys Gln Tyr Arg Gln Ala Lys Glu Thr Ser Asn  
 145 150 155 160  
 Ile Ala Leu Gly Ser Ser Phe Ser Lys Glu Ser Gly Lys Lys Gln Arg  
 165 170 175  
 Met Lys Gly Val Gln Gln Gly Ile Glu Gln Arg Val Lys Ser Phe Asn  
 180 185 190  
 Val Gly Arg Gly Arg Gly Leu Pro Lys Lys Ile Lys Arg Lys Glu Arg  
 195 200 205  
 Gly Gly Arg Thr Asn Lys Gly Pro Asn Val Phe Ser Val Ser Asp Asp  
 210 215 220  
 Phe Gln Glu Tyr Asn Lys Pro Gly Lys Lys Trp Lys Val Met Thr Gln  
 225 230 235 240  
 Glu Phe Ile Asn Gln His Thr Val Glu His Lys Gly Lys Gln Ile Cys  
 245 250 255  
 Lys Tyr Phe Leu Glu Gly Arg Cys Ile Lys Gly Asp Gln Cys Lys Phe  
 260 265 270  
 Asp His Asp Ala Glu Leu Glu Lys Arg Lys Glu Ile Cys Lys Phe Tyr  
 275 280 285  
 Leu Gln Gly Tyr Cys Thr Lys Gly Glu Asn Cys Ile Tyr Met His Asn  
 290 295 300  
 Glu Phe Pro Cys Lys Phe Tyr His Ser Gly Ala Lys Cys Tyr Gln Gly  
 305 310 315 320  
 Asp Asn Cys Lys Phe Ser His Asp Asp Leu Thr Lys Glu Thr Lys Lys  
 325 330 335

Leu Leu Asp Lys Val Leu Asn Thr Asp Glu Glu Leu Ile Asn Glu Asp  
                  340                 345                 350  
 Glu Arg Glu Leu Glu Glu Leu Arg Lys Arg Gly Ile Thr Pro Leu Pro  
                  355                 360                 365  
 Lys Pro Pro Pro Gly Val Gly Leu Leu Pro Thr Pro Pro Glu His Phe  
                  370                 375                 380  
 Pro Phe Ser Asp Pro Glu Asp Asp Phe Gln Thr Asp Phe Ser Asp Asp  
                  385                 390                 395                 400  
 Phe Arg Lys Ile Pro Ser Leu Phe Glu Ile Val Val Lys Pro Thr Val  
                  405                 410                 415  
 Asp Leu Ala His Lys Ile Gly Arg Lys Pro Pro Ala Phe Tyr Thr Ser  
                  420                 425                 430  
 Ala Ser Pro Pro Gly Pro Gln Phe Gln Gly Ser Ser Pro His Pro Gln  
                  435                 440                 445  
 His Ile Tyr Ser Ser Gly Ser Ser Pro Gly Pro Gly Pro Asn Met Ser  
                  450                 455                 460  
 Gln Gly His Ser Ser Pro Val Met His Pro Gly Ser Pro Gly His His  
                  465                 470                 475                 480  
 Pro Cys Ala Gly Pro Pro Gly Leu Pro Val Pro Gln Ser Pro Pro Leu  
                  485                 490                 495  
 Pro Pro Gly Pro Pro Glu Ile Val Gly Pro Gln Asn Gln Ala Gly Val  
                  500                 505                 510  
 Leu Val Gln Pro Asp Thr Ser Leu Thr Pro Pro Ser Met Gly Gly Ala  
                  515                 520                 525  
 Tyr His Ser Pro Gly Phe Pro Gly His Val Met Lys Val Pro Arg Glu  
                  530                 535                 540  
 Asn His Cys Ser Pro Gly Ser Ser Tyr Gln Gln Ser Pro Gly Glu Met  
                  545                 550                 555                 560  
 Gln Leu Asn Thr Asn Tyr Glu Ser Leu Gln Asn Pro Ala Glu Phe Tyr  
                  565                 570                 575  
 Asp Asn Tyr Tyr Ala Gln His Ser Ile His Asn Phe Gln Pro Pro Asn  
                  580                 585                 590  
 Asn Ser Gly Asp Gly Met Trp His Gly Glu Phe Ala Gln Gln Gln Pro  
                  595                 600                 605  
 Pro Val Val Gln Asp Ser Pro Asn His Gly Ser Gly Ser Asp Gly Ser  
                  610                 615                 620

Ser Thr Arg Thr Gly His Gly Pro Leu Pro Val Pro Gly Leu Leu Pro  
 625 630 635 640  
 Ala Val Gln Arg Ala Leu Phe Val Arg Leu Thr Gln Arg Tyr Gln Glu  
 645 650 655  
 Asp Glu Glu Gln Thr Ser Thr Gln Pro His Arg Ala Pro Ser Lys Glu  
 660 665 670  
 Glu Asp Asp Thr Val Asn Trp Tyr Ser Ser Glu Glu Glu Glu Gly  
 675 680 685  
 Ser Ser Val Lys Ser Ile Leu Lys Thr Leu Gln Lys Gln Thr Glu Thr  
 690 695 700  
 Leu Arg Asn Gln Gln Gln Pro Ser Thr Glu Leu Ser Thr Pro Thr Asp  
 705 710 715 720  
 Pro Arg Leu Ala Lys Glu Lys Ser Lys Gly Asn Gln Val Val Asp Pro  
 725 730 735  
 Arg Leu Arg Thr Ile Pro Arg Gln Asp Ile Arg Lys Pro Ser Glu Ser  
 740 745 750  
 Ala Pro Leu Asp Leu Arg Leu Ala Trp Asp Pro Arg Lys Leu Arg Gly  
 755 760 765  
 Asn Gly Ser Gly His Ile Gly Ser Ser Val Gly Gly Ala Lys Phe Asp  
 770 775 780  
 Leu His His Ala Asn Ala Gly Thr Asn Val Lys His Lys Arg Gly Asp  
 785 790 795 800  
 Asp Asp Asp Glu Asp Thr Glu Arg Glu Leu Gly Glu Lys Ala Phe Leu  
 805 810 815  
 Ile Pro Leu Asp Ala Ser Pro Gly Ile Met Leu Gln Asp Pro Arg Ser  
 820 825 830  
 Gln Leu Arg Gln Phe Ser His Ile Lys Lys Asp Ile Thr Leu Thr Lys  
 835 840 845  
 Pro Asn Phe Ala Lys His Ile Val Trp Ala Pro Glu Asp Leu Pro  
 850 855 860  
 Val Pro Leu Pro Lys Pro Asp Pro Val Ser Ser Ile Asn Leu Pro Leu  
 865 870 875 880  
 Pro Pro Leu Ile Ala Asp Gln Arg Leu Asn Arg Leu  
 885 890

&lt;210&gt; 4835

&lt;211&gt; 891

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4835

Met	Ala	Leu	Thr	Gln	Gly	Pro	Leu	Thr	Phe	Arg	Asp	Val	Ala	Ile	Glu
1															15
Phe	Ser	Gln	Glu	Glu	Trp	Lys	Ser	Leu	Asp	Pro	Val	Gln	Lys	Ala	Leu
															30
Tyr	Trp	Asp	Val	Met	Leu	Glu	Asn	Tyr	Arg	Asn	Leu	Val	Phe	Leu	Gly
															45
Ile	Leu	Pro	Lys	Cys	Met	Thr	Lys	Glu	Leu	Pro	Pro	Ile	Gly	Asn	Ser
															60
Asn	Thr	Gly	Glu	Lys	Cys	Gln	Thr	Val	Thr	Leu	Glu	Arg	His	Glu	Cys
															80
Tyr	Asp	Val	Glu	Asn	Phe	Tyr	Leu	Arg	Glu	Ile	Gln	Lys	Asn	Leu	Gln
															95
Asp	Leu	Glu	Phe	Gln	Trp	Lys	Asp	Gly	Glu	Ile	Asn	Tyr	Lys	Glu	Val
															110
Pro	Met	Thr	Tyr	Lys	Asn	Asn	Leu	Asn	Gly	Lys	Arg	Gly	Gln	His	Ser
															125
Gln	Glu	Asp	Val	Glu	Asn	Lys	Cys	Ile	Glu	Asn	Gln	Leu	Thr	Leu	Ser
															140
Phe	Gln	Ser	Arg	Leu	Thr	Glu	Leu	Gln	Lys	Phe	Gln	Thr	Glu	Gly	Lys
															160
Ile	Tyr	Glu	Cys	Asn	Gln	Ser	Glu	Lys	Thr	Val	Asn	Asn	Ser	Ser	Leu
															175
Val	Ser	Pro	Leu	Gln	Arg	Ile	Leu	Pro	Ser	Val	Gln	Thr	Asn	Ile	Ser
															190
Lys	Lys	Tyr	Glu	Asn	Glu	Phe	Leu	Gln	Leu	Ser	Leu	Pro	Thr	Gln	Leu
															205
Glu	Lys	Thr	His	Ile	Arg	Glu	Lys	Pro	Tyr	Ile	Cys	Lys	Gly	Cys	Gly
															220
Lys	Ala	Phe	Arg	Val	Ser	Ser	Ser	Leu	Ile	Asn	His	Gln	Met	Val	His

225	230	235	240
Thr Thr Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe His			
245	250	255	
Arg Gly Ser Leu Leu Thr Ile His Gln Ile Val His Thr Arg Gly Lys			
260	265	270	
Pro Tyr Gln Cys Gly Val Cys Gly Lys Ile Phe Arg Gln Asn Ser Asp			
275	280	285	
Leu Val Asn His Arg Arg Ser His Thr Gly Glu Lys Pro Tyr Lys Cys			
290	295	300	
Asn Glu Cys Gly Lys Ser Phe Ser Gln Ser Tyr Asn Leu Ala Ile His			
305	310	315	320
Gln Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly			
325	330	335	
Lys Thr Phe Lys Gln Gly Ser Cys Leu Thr Thr His Gln Ile Ile His			
340	345	350	
Thr Gly Glu Lys Pro Tyr Gln Cys Asp Ile Cys Gly Lys Val Phe Arg			
355	360	365	
Gln Asn Ser Asn Leu Val Asn His Gln Arg Ile His Thr Gly Glu Lys			
370	375	380	
Pro Tyr Lys Cys Asn Ile Cys Gly Lys Ser Phe Ser Gln Ser Ser Asn			
385	390	395	400
Leu Ala Thr His Gln Thr Val His Ser Gly Asn Lys Pro Tyr Lys Cys			
405	410	415	
Asp Glu Cys Gly Lys Thr Phe Lys Arg Ser Ser Ser Leu Thr Thr His			
420	425	430	
Gln Val Ile His Thr Gly Glu Lys Pro Tyr Thr Cys Asp Val Cys Asp			
435	440	445	
Lys Val Phe Ser Gln Arg Ser Gln Leu Ala Arg His Gln Arg Gly His			
450	455	460	
Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Ser			
465	470	475	480
Gln Thr Ser His Leu Val Gly His Arg Arg Ile His Thr Gly Glu Lys			
485	490	495	
Pro Tyr Lys Cys Asp Lys Cys Gly Lys Ala Phe Lys Gln Gly Ser Leu			
500	505	510	
Leu Thr Arg His Lys Ile Ile His Thr Arg Glu Lys Arg Tyr Gln Cys			

515	520	525
Gly Glu Cys Gly Lys Val Phe Ser Glu Asn Ser Cys Leu Val Arg His		
530	535	540
Leu Arg Ile His Thr Gly Glu Gln Pro Tyr Lys Cys Asn Val Cys Gly		
545	550	555
Lys Val Phe Asn Tyr Ser Gly Asn Leu Ser Ile His Lys Arg Ile Arg		
565	570	575
Thr Gly Glu Lys Pro Phe Gln Cys Asn Glu Cys Gly Thr Val Phe Arg		
580	585	590
Asn Tyr Ser Cys Leu Ala Arg His Leu Arg Ile His Thr Gly Gln Lys		
595	600	605
Pro Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Asn Asp Ser Gly Asn		
610	615	620
Leu Ser Asn His Lys Arg Ile His Thr Gly Glu Lys Pro Phe Gln Cys		
625	630	635
Asn Glu Cys Gly Lys Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His		
645	650	655
Arg Lys Ile His Ala Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly		
660	665	670
Lys Ala Tyr Thr Gln Arg Ser Ser Leu Thr Lys His Leu Ile Ile His		
675	680	685
Thr Gly Glu Lys Pro Tyr Asn Cys Asn Glu Phe Gly Ala Phe Ile		
690	695	700
Gln Ser Ser Lys Leu Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys		
705	710	715
Pro His Lys Cys Ser His Cys Gly Arg Thr Phe Ser His Ile Thr Gly		
725	730	735
Leu Thr Tyr His Gln Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys		
740	745	750
Ile Glu Cys Gly Gln Val Phe Asn Ser Thr Ser Asn Leu Ala Arg His		
755	760	765
Arg Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
770	775	780
Lys Val Phe Arg His Gln Ser Thr Leu Ala Arg His Arg Ser Ile His		
785	790	795
Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Ala Phe Arg		800

805	810	815
Val Arg Ser Ile Leu Val Asn His Gln Lys Met His Thr Gly Asp Lys		
820	825	830
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ile Glu Arg Ser Lys		
835	840	845
Leu Val Tyr His Gln Arg Asn His Thr Gly Glu Lys Pro Tyr Lys Cys		
850	855	860
Ile Glu Cys Gly Lys Ala Phe Gly Arg Phe Ser Cys Leu Asn Lys His		
865	870	875
Gln Met Ile His Ser Gly Glu Lys Pro Tyr Lys		
885	890	

<210> 4836

<211> 374

<212> PRT

<213> Homo sapiens

<400> 4836

Met Ile Glu Tyr Gln Ile Pro Val Ser Phe Lys Asp Val Val Val Gly			
1	5	10	15
Phe Thr Gln Glu Glu Trp His Arg Leu Ser Pro Ala Gln Arg Ala Leu			
20	25	30	
Tyr Arg Asp Val Met Leu Glu Thr Tyr Ser Asn Leu Ala Ser Val Gly			
35	40	45	
Tyr Glu Gly Thr Lys Pro Asp Val Ile Leu Arg Leu Glu Gln Glu Glu			
50	55	60	
Ala Pro Trp Ile Gly Glu Ala Ala Cys Pro Gly Cys His Cys Trp Glu			
65	70	75	80
Asp Ile Trp Arg Val Asn Ile Gln Arg Lys Arg Arg Gln Asp Met Leu			
85	90	95	
Leu Arg Pro Gly Ala Ala Ile Ser Lys Lys Thr Leu Pro Lys Glu Lys			
100	105	110	
Ser Cys Glu Tyr Asn Lys Phe Gly Lys Ile Ser Leu Leu Ser Thr Asp			
115	120	125	
Leu Phe Ser Ser Ile Gln Ser Pro Ser Asn Trp Asn Pro Cys Gly Lys			

130	135	140	
Asn Leu Asn His Asn Leu Asp Leu Ile Gly Phe Lys Arg Asn Cys Ala			
145	150	155	160
Lys Lys Gln Asp Glu Cys Tyr Ala Tyr Gly Lys Leu Leu Gln Arg Ile			
165	170	175	
Asn His Gly Arg Arg Pro Asn Gly Glu Lys Pro Arg Gly Cys Ser His			
180	185	190	
Cys Glu Lys Ala Phe Thr Gln Asn Pro Ala Leu Met Tyr Lys Pro Ala			
195	200	205	
Val Ser Asp Ser Leu Leu Tyr Lys Arg Lys Arg Val Pro Pro Thr Glu			
210	215	220	
Lys Pro His Val Cys Ser Glu Cys Gly Lys Ala Phe Cys Tyr Lys Ser			
225	230	235	240
Glu Phe Ile Arg His Gln Arg Ser His Thr Gly Glu Lys Pro Tyr Gly			
245	250	255	
Cys Thr Asp Cys Gly Lys Ala Phe Ser His Lys Ser Thr Leu Ile Lys			
260	265	270	
His Gln Arg Ile His Thr Gly Val Arg Pro Phe Glu Cys Phe Phe Cys			
275	280	285	
Gly Lys Ala Phe Thr Gln Lys Ser His Arg Thr Glu His Gln Arg Thr			
290	295	300	
His Thr Gly Glu Arg Pro Phe Val Cys Ser Glu Cys Gly Lys Ser Phe			
305	310	315	320
Gly Glu Lys Ser Tyr Leu Asn Val His Arg Lys Met His Thr Gly Glu			
325	330	335	
Arg Pro Tyr Arg Cys Arg Glu Cys Gly Lys Ser Phe Ser Gln Lys Ser			
340	345	350	
Cys Leu Asn Lys His Trp Arg Thr His Phe Gly Glu Ser Ser Leu Arg			
355	360	365	
Ser Lys Ser Ser Asn Thr			
370			

&lt;210&gt; 4837

&lt;211&gt; 896

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4837

Met Thr Glu Glu Ser Glu Glu Thr Val Leu Tyr Ile Glu His Arg Tyr  
 1 5 10 15  
 Val Cys Ser Glu Cys Asn Gln Leu Tyr Gly Ser Leu Glu Glu Val Leu  
 20 25 30  
 Met His Gln Asn Ser His Val Pro Gln Gln His Phe Glu Leu Val Gly  
 35 40 45  
 Val Ala Asp Pro Gly Val Thr Val Ala Thr Asp Thr Ala Ser Gly Thr  
 50 55 60  
 Gly Leu Tyr Gln Thr Leu Val Gln Glu Ser Gln Tyr Gln Cys Leu Glu  
 65 70 75 80  
 Cys Gly Gln Leu Leu Met Ser Pro Ser Gln Leu Leu Glu His Gln Glu  
 85 90 95  
 Leu His Leu Lys Met Met Ala Pro Gln Glu Ala Val Pro Ala Glu Pro  
 100 105 110  
 Ser Pro Lys Ala Pro Pro Leu Ser Ser Ser Thr Ile His Tyr Glu Cys  
 115 120 125  
 Val Asp Cys Lys Ala Leu Phe Ala Ser Gln Glu Leu Trp Leu Asn His  
 130 135 140  
 Arg Gln Thr His Leu Arg Ala Thr Pro Thr Lys Ala Pro Ala Pro Val  
 145 150 155 160  
 Val Leu Gly Ser Pro Val Val Leu Gly Pro Pro Val Gly Gln Ala Arg  
 165 170 175  
 Val Ala Val Glu His Ser Tyr Arg Lys Ala Glu Glu Gly Glu Gly  
 180 185 190  
 Ala Thr Val Pro Ser Ala Ala Ala Thr Thr Thr Glu Val Val Thr Glu  
 195 200 205  
 Val Glu Leu Leu Leu Tyr Lys Cys Ser Glu Cys Ser Gln Leu Phe Gln  
 210 215 220  
 Leu Pro Ala Asp Phe Leu Glu His Gln Ala Thr His Phe Pro Ala Pro  
 225 230 235 240  
 Val Pro Glu Ser Gln Glu Pro Ala Leu Gln Gln Glu Val Gln Ala Ser  
 245 250 255

Ser Pro Ala Glu Val Pro Val Ser Gln Pro Asp Pro Leu Pro Ala Ser  
 260 265 270  
 Asp His Ser Tyr Glu Leu Arg Asn Gly Glu Ala Ile Gly Arg Asp Arg  
 275 280 285  
 Arg Gly Arg Arg Ala Arg Arg Asn Asn Ser Gly Glu Ala Gly Gly Ala  
 290 295 300  
 Ala Thr Gln Glu Leu Phe Cys Ser Ala Cys Asp Gln Leu Phe Leu Ser  
 305 310 315 320  
 Pro His Gln Leu Gln Gln His Leu Arg Ser His Arg Glu Gly Val Phe  
 325 330 335  
 Lys Cys Pro Leu Cys Ser Arg Val Phe Pro Ser Pro Ser Ser Leu Asp  
 340 345 350  
 Gln His Leu Gly Asp His Ser Ser Glu Ser His Phe Leu Cys Val Asp  
 355 360 365  
 Cys Gly Leu Ala Phe Gly Thr Glu Ala Leu Leu Leu Ala His Arg Arg  
 370 375 380  
 Ala His Thr Pro Asn Pro Leu His Ser Cys Pro Cys Gly Lys Thr Phe  
 385 390 395 400  
 Val Asn Leu Thr Lys Phe Leu Tyr His Arg Arg Thr His Gly Val Gly  
 405 410 415  
 Gly Val Pro Leu Pro Thr Thr Pro Val Pro Pro Glu Glu Pro Val Ile  
 420 425 430  
 Gly Phe Pro Glu Pro Ala Pro Ala Glu Thr Gly Glu Pro Glu Ala Pro  
 435 440 445  
 Glu Pro Pro Val Ser Glu Glu Thr Ser Ala Gly Pro Ala Ala Pro Gly  
 450 455 460  
 Thr Tyr Arg Cys Leu Leu Cys Ser Arg Glu Phe Gly Lys Ala Leu Gln  
 465 470 475 480  
 Leu Thr Arg His Gln Arg Phe Val His Arg Leu Glu Arg Arg His Lys  
 485 490 495  
 Cys Ser Ile Cys Gly Lys Met Phe Lys Lys Ser His Val Arg Asn  
 500 505 510  
 Arg Leu Arg Thr His Thr Gly Glu Arg Pro Phe Pro Cys Pro Asp Cys  
 515 520 525  
 Ser Lys Pro Phe Asn Ser Pro Ala Asn Leu Ala Arg His Arg Leu Thr  
 530 535 540

His Thr Gly Glu Arg Pro Tyr Arg Cys Gly Asp Cys Gly Lys Ala Phe  
 545 550 555 560  
 Thr Gln Ser Ser Thr Leu Arg Gln His Arg Leu Val His Ala Gln His  
 565 570 575  
 Phe Pro Tyr Arg Cys Gln Glu Cys Gly Val Arg Phe His Arg Pro Tyr  
 580 585 590  
 Arg Leu Leu Met His Arg Tyr His His Thr Gly Glu Tyr Pro Tyr Lys  
 595 600 605  
 Cys Arg Glu Cys Pro Arg Ser Phe Leu Leu Arg Arg Leu Leu Glu Val  
 610 615 620  
 His Gln Leu Val Val His Ala Gly Arg Gln Pro His Arg Cys Pro Ser  
 625 630 635 640  
 Cys Gly Ala Ala Phe Pro Ser Ser Leu Arg Leu Arg Glu His Arg Cys  
 645 650 655  
 Ala Ala Ala Ala Ala Gln Ala Pro Arg Arg Phe Glu Cys Gly Thr Cys  
 660 665 670  
 Gly Lys Lys Val Gly Ser Ala Ala Arg Leu Gln Ala His Glu Ala Ala  
 675 680 685  
 His Ala Ala Ala Gly Pro Gly Glu Val Leu Ala Lys Glu Pro Pro Ala  
 690 695 700  
 Pro Arg Ala Pro Arg Ala Thr Arg Ala Pro Val Ala Ser Pro Ala Ala  
 705 710 715 720  
 Leu Gly Ser Thr Ala Thr Ala Ser Pro Ala Ala Pro Ala Arg Arg Arg  
 725 730 735  
 Gly Leu Glu Cys Ser Glu Cys Lys Lys Leu Phe Ser Thr Glu Thr Ser  
 740 745 750  
 Leu Gln Val His Arg Arg Ile His Thr Gly Glu Arg Pro Tyr Pro Cys  
 755 760 765  
 Pro Asp Cys Gly Lys Ala Phe Arg Gln Ser Thr His Leu Lys Asp His  
 770 775 780  
 Arg Arg Leu His Thr Gly Glu Arg Pro Phe Ala Cys Glu Val Cys Gly  
 785 790 795 800  
 Lys Ala Phe Ala Ile Ser Met Arg Leu Ala Glu His Arg Arg Ile His  
 805 810 815  
 Thr Gly Glu Arg Pro Tyr Ser Cys Pro Asp Cys Gly Lys Ser Tyr Arg  
 820 825 830

<210> 4838

211 464

<212> PRT

<213> *Homo sapiens*

<400> 4838

Met	Phe	Glu	Asn	Glu	Ser	Arg	Lys	Ile	Phe	Ser	Glu	Met	Pro	Glu	Gly
1	5							10				15			
Glu	Ser	Ala	Gln	His	Ser	Asp	Gly	Glu	Ser	Asp	Phe	Glu	Arg	Asp	Ala
								20			25			30	
Gly	Ile	Gln	Arg	Leu	Gln	Gly	His	Thr	Pro	Gly	Glu	Asp	His	Gly	Glu
								35			40			45	
Val	Val	Ser	Gln	Asp	Arg	Glu	Val	Gly	Gln	Leu	Ile	Gly	Leu	Gln	Gly
								50			55			60	
Thr	Tyr	Leu	Gly	Glu	Lys	Pro	Tyr	Glu	Cys	Pro	Gln	Cys	Gly	Lys	Thr
								65			70			75	
Phe	Ser	Pro	Lys	Ser	His	Leu	Ile	Thr	His	Glu	Arg	Thr	His	Thr	Gly
								85			90			95	
Glu	Lys	Tyr	Tyr	Lys	Cys	Asp	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Asp	Gly
								100			105			110	
Ser	Asn	Phe	Ser	Arg	His	Gln	Thr	Thr	His	Thr	Gly	Glu	Lys	Pro	Tyr
								115			120			125	
Lys	Cys	Arg	Asp	Cys	Gly	Lys	Ser	Phe	Ser	Arg	Ser	Ala	Asn	Leu	Ile
								130			135			140	
Thr	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Phe	Gln	Cys	Ala	Glu
								145			150			155	

Cys Gly Lys Ser Phe Ser Arg Ser Pro Asn Leu Ile Ala His Gln Arg  
                  165                 170                 175  
 Thr His Thr Gly Glu Lys Pro Tyr Ser Cys Pro Glu Cys Gly Lys Ser  
                  180                 185                 190  
 Phe Gly Asn Arg Ser Ser Leu Asn Thr His Gln Gly Ile His Thr Gly  
                  195                 200                 205  
 Glu Lys Pro Tyr Glu Cys Lys Glu Cys Gly Glu Ser Phe Ser Tyr Asn  
                  210                 215                 220  
 Ser Asn Leu Ile Arg His Gln Arg Ile His Thr Gly Glu Glu Pro Tyr  
                  225                 230                 235                 240  
 Lys Cys Thr Asp Cys Gly Gln Arg Phe Ser Gln Ser Ser Ala Leu Ile  
                  245                 250                 255  
 Thr His Arg Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys Ser Glu  
                  260                 265                 270  
 Cys Gly Lys Ser Phe Ser Arg Ser Ser Asn Leu Ala Thr His Arg Arg  
                  275                 280                 285  
 Thr His Met Val Glu Lys Pro Tyr Lys Cys Gly Val Cys Gly Lys Ser  
                  290                 295                 300  
 Phe Ser Gln Ser Ser Ser Leu Ile Ala His Gln Gly Met His Thr Gly  
                  305                 310                 315                 320  
 Glu Lys Pro Tyr Glu Cys Leu Thr Cys Gly Glu Ser Phe Ser Trp Ser  
                  325                 330                 335  
 Ser Asn Leu Leu Lys His Gln Arg Ile His Thr Gly Glu Lys Pro Tyr  
                  340                 345                 350  
 Lys Cys Ser Glu Cys Gly Lys Cys Phe Ser Gln Arg Ser Gln Leu Val  
                  355                 360                 365  
 Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Lys Cys Leu Met  
                  370                 375                 380  
 Cys Gly Lys Ser Phe Ser Arg Gly Ser Ile Leu Val Met His Gln Arg  
                  385                 390                 395                 400  
 Ala His Leu Gly Asp Lys Pro Tyr Arg Cys Pro Glu Cys Gly Lys Gly  
                  405                 410                 415  
 Phe Ser Trp Asn Ser Val Leu Ile Ile His Gln Arg Ile His Thr Gly  
                  420                 425                 430  
 Glu Lys Pro Tyr Lys Cys Pro Glu Cys Gly Lys Gly Phe Ser Asn Ser  
                  435                 440                 445

Ser Asn Phe Ile Thr His Gln Arg Thr His Met Lys Glu Lys Leu Tyr  
 450                    455                    460

<210> 4839

<211> 347

<212> PRT

<213> Homo sapiens

<400> 4839

Met Ser Gly Pro Gly Asn Lys Arg Ala Ala Gly Asp Gly Gly Ser Gly  
 1                    5                    10                    15

Pro Pro Glu Lys Lys Leu Ser Arg Glu Glu Lys Thr Thr Thr Leu  
 20                    25                    30

Ile Glu Pro Ile Arg Leu Gly Gly Ile Ser Ser Thr Glu Glu Met Asp  
 35                    40                    45

Leu Lys Val Leu Gln Phe Lys Asn Lys Lys Leu Ala Glu Arg Leu Glu  
 50                    55                    60

Gln Arg Gln Ala Cys Glu Asp Glu Leu Arg Glu Arg Ile Glu Lys Leu  
 65                    70                    75                    80

Glu Lys Arg Gln Ala Thr Asp Asp Ala Thr Leu Leu Ile Val Asn Arg  
 85                    90                    95

Tyr Trp Ala Gln Leu Asp Glu Thr Val Glu Ala Leu Leu Arg Cys His  
 100                    105                    110

Glu Ser Arg Ile Arg Glu Leu Glu Glu Arg Asp Arg Arg Glu Ser Lys  
 115                    120                    125

Lys Ile Ala Asp Glu Asp Ala Leu Arg Arg Ile Arg Gln Ala Glu Glu  
 130                    135                    140

Gln Ile Glu His Leu Gln Arg Lys Leu Gly Ala Thr Lys Gln Glu Glu  
 145                    150                    155                    160

Glu Ala Leu Leu Ser Glu Met Asp Ala Gln Leu Leu Thr Val Gln Lys  
 165                    170                    175

Leu Glu Glu Lys Glu Arg Ala Leu Gln Gly Ser Leu Gly Gly Val Glu  
 180                    185                    190

Lys Glu Leu Thr Leu Arg Ser Gln Ala Leu Glu Leu Asn Lys Arg Lys  
 195                    200                    205

Ala Val Glu Ala Ala Gln Leu Ala Glu Asp Leu Lys Val Gln Leu Glu  
 210 215 220  
 His Val Gln Thr Arg Leu Arg Glu Ile Gln Pro Cys Leu Ala Glu Ser  
 225 230 235 240  
 Arg Ala Ala Arg Glu Lys Glu Ser Phe Asn Leu Lys Arg Ala Gln Glu  
 245 250 255  
 Asp Ile Ser Arg Leu Arg Arg Lys Leu Glu Lys Gln Arg Lys Val Glu  
 260 265 270  
 Val Tyr Ala Asp Ala Asp Glu Ile Leu Gln Glu Glu Ile Lys Glu Tyr  
 275 280 285  
 Lys Ala Arg Leu Thr Cys Pro Cys Cys Asn Thr Arg Lys Lys Asp Ala  
 290 295 300  
 Val Leu Thr Lys Cys Phe His Val Phe Cys Phe Glu Cys Val Arg Gly  
 305 310 315 320  
 Arg Tyr Glu Ala Arg Gln Arg Lys Cys Pro Lys Cys Asn Ala Ala Phe  
 325 330 335  
 Gly Ala His Asp Phe His Arg Ile Tyr Ile Ser  
 340 345

<210> 4840

<211> 997

<212> PRT

<213> Homo sapiens

<400> 4840

Met Glu Ala Ser Trp Arg Gln Val Ala Gly Gly Arg Gly Arg Ser Arg  
 1 5 10 15  
 Gly Arg Ala Thr Ala Ala Pro Ser Gly Asn Gly Val His Leu Arg Gly  
 20 25 30  
 Ala Gly Gly Arg Glu Lys Gly Ser Val Gly Ala Val Pro Ser Gly  
 35 40 45  
 Thr Ser Pro Gly Gly Val Ala Thr Thr Ala Ala Ala Gly Ser Arg His  
 50 55 60  
 Ser Pro Ala Gly Ser Gln Ala Leu Gln Thr Thr Ala Ala Ser Glu Leu  
 65 70 75 80

Met Ser Gln Lys Lys Phe Glu Glu Ile Lys Lys Ala Asn Gln Ala Ala  
                   85                  90                  95  
 Ala Arg Lys Leu Val Glu Glu Gln Phe Ser Ser Ser Ser Glu Glu Gly  
                   100              105              110  
 Asp Glu Asp Phe Glu Gly Lys Gln Gly Lys Ile Leu Ala Asn Thr Phe  
                   115              120              125  
 Ile Thr Tyr Thr Thr Gln Thr Asp Gly Asp Thr Arg Glu Leu Glu Arg  
                   130              135              140  
 Thr Lys Gln Tyr Val Asn Glu Ala Phe Gln Ala Gly Ala Met Thr Cys  
                   145              150              155              160  
 Leu Ile Cys Ile Ala Ser Val Lys Arg Asn Gln Ala Val Trp Ser Cys  
                   165              170              175  
 Ser Gly Cys Phe Cys Ile Phe His Met Pro Cys Ile Gln Lys Trp Ala  
                   180              185              190  
 Lys Asp Ser Gln Phe Leu Val Ser Ser Val Thr Asp Asp Asp Phe Gly  
                   195              200              205  
 Lys Lys Asp Cys Pro Trp Pro Cys Pro Lys Cys Arg Phe Glu Tyr Lys  
                   210              215              220  
 Arg Ser Glu Thr Pro Ser Arg Tyr Tyr Cys Tyr Cys Gly Lys Val Glu  
                   225              230              235              240  
 Asp Pro Pro Leu Asp Pro Trp Leu Val Pro His Ser Cys Gly Gln Val  
                   245              250              255  
 Cys Glu Arg Glu Phe Lys Pro Pro Cys Gly His Lys Cys Leu Leu Leu  
                   260              265              270  
 Cys His Pro Gly Pro Cys Pro Pro Cys Pro Lys Met Val Thr Thr Thr  
                   275              280              285  
 Cys Tyr Cys Lys Lys Ala Lys Pro Ile Pro Arg Arg Cys Ser Ala Lys  
                   290              295              300  
 Glu Trp Ser Cys Gln Leu Pro Cys Gly Gln Lys Leu Leu Cys Gly Gln  
                   305              310              315              320  
 His Lys Cys Glu Asn Pro Cys His Ala Gly Ser Cys Gln Pro Cys Pro  
                   325              330              335  
 Arg Val Ser Arg Gln Lys Cys Val Cys Gly Lys Lys Val Ala Glu Arg  
                   340              345              350  
 Ser Cys Ala Ser Pro Leu Trp His Cys Asp Gln Val Cys Gly Lys Thr  
                   355              360              365

Leu Pro Cys Gly Asn His Thr Cys Glu Gln Val Cys His Val Gly Ala  
 370 375 380  
 Cys Gly Glu Cys Pro Arg Ser Gly Lys Arg Phe Cys Pro Cys Gln Lys  
 385 390 395 400  
 Ser Lys Phe Ser Leu Pro Cys Thr Glu Asp Val Pro Thr Cys Gly Asp  
 405 410 415  
 Ser Cys Asp Lys Val Leu Glu Cys Gly Ile His Arg Cys Ser Gln Arg  
 420 425 430  
 Cys His Arg Gly Pro Cys Glu Thr Cys Arg Gln Glu Val Glu Lys His  
 435 440 445  
 Cys Arg Cys Gly Lys His Thr Lys Arg Met Pro Cys His Lys Pro Tyr  
 450 455 460  
 Leu Cys Glu Thr Lys Cys Val Lys Met Arg Asp Cys Gln Lys His Gln  
 465 470 475 480  
 Cys Arg Arg Lys Cys Cys Pro Gly Asn Cys Pro Pro Cys Asp Gln Asn  
 485 490 495  
 Cys Gly Arg Thr Leu Gly Cys Arg Asn His Lys Cys Pro Ser Val Cys  
 500 505 510  
 His Arg Gly Ser Cys Tyr Pro Cys Pro Glu Thr Val Asp Val Lys Cys  
 515 520 525  
 Asn Cys Gly Asn Thr Lys Val Thr Val Pro Cys Gly Arg Glu Arg Thr  
 530 535 540  
 Thr Arg Pro Pro Lys Cys Lys Glu Gln Cys Ser Arg Pro Pro Thr Cys  
 545 550 555 560  
 His His Thr Ser Gln Glu Lys His Arg Cys His Phe Gly Ser Cys Pro  
 565 570 575  
 Pro Cys His Gln Pro Cys Gln Lys Val Leu Glu Lys Cys Gly His Leu  
 580 585 590  
 Cys Pro Ala Pro Cys His Asp Gln Ala Leu Ile Lys Gln Thr Gly Arg  
 595 600 605  
 His Gln Pro Thr Gly Pro Trp Glu Gln Pro Ser Glu Pro Ala Phe Ile  
 610 615 620  
 Gln Thr Ala Leu Pro Cys Pro Pro Cys Gln Val Pro Ile Pro Met Glu  
 625 630 635 640  
 Cys Leu Gly Lys His Glu Val Ser Pro Leu Pro Cys His Ala Val Gly  
 645 650 655

Pro Tyr Ser Cys Lys Arg Val Cys Gly Arg Ile Leu Asp Cys Gln Asn  
 660 665 670  
 His Thr Cys Met Lys Glu Cys His Lys Val Thr Lys Thr Asp Gly Cys  
 675 680 685  
 Thr Gly Lys Asn Lys Ala Gly Pro Glu Cys Leu His Cys Glu Glu Gly  
 690 695 700  
 Cys Ser Lys Ser Arg Pro Leu Gly Cys Leu His Pro Cys Ile Leu Arg  
 705 710 715 720  
 Cys His Pro Gly Glu Cys Pro Pro Cys Val Gln Met Leu Arg Ile Lys  
 725 730 735  
 Cys His Cys Lys Ile Thr Ser Leu Tyr Val Glu Cys Arg Lys Ile Thr  
 740 745 750  
 Thr Ala Asp Val Asn Glu Lys Asn Leu Leu Ser Cys Cys Lys Asn Gln  
 755 760 765  
 Cys Pro Lys Glu Leu Pro Cys Gly His Arg Cys Lys Glu Met Cys His  
 770 775 780  
 Pro Gly Glu Cys Pro Phe Asn Cys Asn Gln Lys Val Lys Leu Arg Cys  
 785 790 795 800  
 Pro Cys Lys Arg Ile Lys Lys Glu Leu Gln Cys Asn Lys Val Arg Glu  
 805 810 815  
 Asn Gln Val Ser Ile Glu Cys Asp Thr Thr Cys Lys Glu Met Lys Arg  
 820 825 830  
 Lys Ala Ser Glu Ile Lys Glu Ala Glu Ala Lys Ala Ala Leu Glu Glu  
 835 840 845  
 Glu Lys Arg Arg Gln Gln Ala Glu Leu Glu Ala Phe Glu Asn Arg Leu  
 850 855 860  
 Lys Thr Asn His Ile Gly His Thr Gly Tyr Leu Asn Thr Val Thr Val  
 865 870 875 880  
 Ser Pro Asp Gly Ser Leu Cys Ala Ser Gly Gly Lys Asp Gly Gln Ala  
 885 890 895  
 Met Leu Trp Asp Leu Asn Glu Gly Lys His Leu Tyr Thr Leu Asp Gly  
 900 905 910  
 Gly Asp Ile Ile Asn Ala Leu Cys Phe Ser Pro Asn Arg Tyr Trp Leu  
 915 920 925  
 Cys Ala Ala Thr Gly Pro Ser Ile Lys Ile Trp Asp Leu Glu Gly Lys  
 930 935 940

Ile Ile Val Asp Glu Leu Lys Gln Glu Val Ile Ser Thr Ser Ser Lys  
 945 950 955 960  
 Ala Glu Pro Pro Gln Cys Thr Ser Leu Ala Trp Ser Ala Asp Gly Gln  
 965 970 975  
 Thr Leu Phe Ala Gly Tyr Thr Asp Asn Leu Val Arg Val Trp Gln Val  
 980 985 990  
 Thr Ile Gly Thr Arg  
 995

<210> 4841

<211> 709

<212> PRT

<213> Homo sapiens

<400> 4841

Met Lys Arg Cys Arg Ser Asp Glu Leu Gln Gln Gln Gly Glu Glu  
 1 5 10 15  
 Asp Gly Ala Gly Leu Glu Asp Ala Ala Ser His Leu Pro Gly Ala Asp  
 20 25 30  
 Leu Arg Pro Gly Glu Thr Thr Gly Ala Asn Ser Ala Gly Gly Pro Thr  
 35 40 45  
 Ser Asp Ala Gly Ala Ala Ala Pro Asn Pro Gly Pro Arg Ser Lys  
 50 55 60  
 Pro Pro Asp Leu Lys Ile Gln Gln Leu Ser Glu Gly Ser Met Phe  
 65 70 75 80  
 Gly His Gly Leu Lys His Leu Phe His Ser Arg Arg Arg Ser Arg Glu  
 85 90 95  
 Arg Glu His Gln Thr Ser Gln Asp Ser Gln Gln His Gln Gln Gln  
 100 105 110  
 Gly Met Ser Asp His Asp Ser Pro Asp Glu Lys Glu Arg Ser Pro Glu  
 115 120 125  
 Met His Arg Val Ser Tyr Ala Met Ser Leu His Asp Leu Pro Ala Arg  
 130 135 140  
 Pro Thr Ala Phe Asn Arg Val Leu Gln Gln Ile Arg Ser Arg Pro Ser  
 145 150 155 160

Ile Lys Arg Gly Ala Ser Leu His Ser Ser Ser Gly Gly Gly Ser Ser  
                  165                 170                 175  
 Gly Ser Ser Ser Arg Arg Thr Lys Ser Ser Ser Leu Glu Pro Gln Arg  
                  180                 185                 190  
 Gly Ser Pro His Leu Leu Arg Lys Ala Pro Gln Asp Ser Ser Leu Ala  
                  195                 200                 205  
 Ala Ile Leu His Gln His Gln Cys Arg Pro Arg Ser Ser Ser Thr Thr  
                  210                 215                 220  
 Asp Thr Ala Leu Leu Leu Ala Asp Gly Ser Asn Val Tyr Leu Leu Ala  
                  225                 230                 235                 240  
 Glu Glu Ala Glu Gly Ile Gly Asp Lys Val Asp Lys Gly Asp Leu Val  
                  245                 250                 255  
 Ala Leu Ser Leu Pro Ala Gly His Gly Asp Thr Asp Gly Pro Ile Ser  
                  260                 265                 270  
 Leu Asp Val Pro Asp Gly Ala Pro Asp Pro Gln Arg Thr Lys Ala Ala  
                  275                 280                 285  
 Ile Asp His Leu His Gln Lys Ile Leu Lys Ile Thr Glu Gln Ile Lys  
                  290                 295                 300  
 Ile Glu Gln Glu Ala Arg Asp Asp Asn Val Ala Glu Tyr Leu Lys Leu  
                  305                 310                 315                 320  
 Ala Asn Asn Ala Asp Lys Gln Gln Val Ser Arg Ile Lys Gln Val Phe  
                  325                 330                 335  
 Glu Lys Lys Asn Gln Lys Ser Ala Gln Thr Ile Ala Gln Leu His Lys  
                  340                 345                 350  
 Lys Leu Glu His Tyr Arg Arg Arg Leu Lys Glu Ile Glu Gln Asn Gly  
                  355                 360                 365  
 Pro Ser Arg Gln Pro Lys Asp Val Leu Arg Asp Met Gln Gln Gly Leu  
                  370                 375                 380  
 Lys Asp Val Gly Ala Asn Val Arg Ala Gly Ile Ser Gly Phe Gly Gly  
                  385                 390                 395                 400  
 Gly Val Val Glu Gly Val Lys Gly Ser Leu Ser Gly Leu Ser Gln Ala  
                  405                 410                 415  
 Thr His Thr Ala Val Val Ser Lys Pro Arg Glu Phe Ala Ser Leu Ile  
                  420                 425                 430  
 Arg Asn Lys Phe Gly Ser Ala Asp Asn Ile Ala His Leu Lys Asp Pro

435	440	445
Leu Glu Asp Gly Pro Pro Glu Glu Ala Ala Arg Ala Leu Ser Gly Ser		
450	455	460
Ala Thr Leu Val Ser Ser Pro Lys Tyr Gly Ser Asp Asp Glu Cys Ser		
465	470	475
Ser Ala Ser Ala Ser Ser Ala Gly Ala Gly Ser Asn Ser Gly Ala Gly		
485	490	495
Pro Gly Gly Ala Leu Gly Ser Pro Lys Ser Asn Ala Leu Tyr Gly Ala		
500	505	510
Pro Gly Asn Leu Asp Ala Leu Leu Glu Glu Leu Arg Glu Ile Lys Glu		
515	520	525
Gly Gln Ser His Leu Glu Asp Ser Met Glu Asp Leu Lys Thr Gln Leu		
530	535	540
Gln Arg Asp Tyr Thr Tyr Met Thr Gln Cys Leu Gln Glu Glu Arg Tyr		
545	550	555
Arg Tyr Glu Arg Leu Glu Glu Gln Leu Asn Asp Leu Thr Glu Leu His		
565	570	575
Gln Asn Glu Met Thr Asn Leu Lys Gln Glu Leu Ala Ser Met Glu Glu		
580	585	590
Lys Val Ala Tyr Gln Ser Tyr Glu Arg Ala Arg Asp Ile Gln Glu Ala		
595	600	605
Val Glu Ser Cys Leu Thr Arg Val Thr Lys Leu Glu Leu Gln Gln		
610	615	620
Gln Gln Gln Val Val Gln Leu Glu Gly Val Glu Asn Ala Asn Ala Arg		
625	630	635
Ala Leu Leu Gly Lys Phe Ile Asn Val Ile Leu Ala Leu Met Ala Val		
645	650	655
Leu Leu Val Phe Val Ser Thr Ile Ala Asn Phe Ile Thr Pro Leu Met		
660	665	670
Lys Thr Arg Leu Arg Ile Thr Ser Thr Thr Leu Leu Val Leu Val Leu		
675	680	685
Phe Leu Leu Trp Lys His Trp Asp Ser Leu Thr Tyr Leu Leu Glu His		
690	695	700
Val Leu Leu Pro Ser		
705		

&lt;210&gt; 4842

&lt;211&gt; 335

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4842

Met Gln Arg His Val Met Val Ala Asn Pro Ser Val Leu Cys Ser His  
 1 5 10 15  
 Phe Asn Gln Asp Leu Trp Pro Glu Gln Ser Ile Lys Asp Ser Phe Gln  
 20 25 30  
 Lys Leu Ile Leu Arg Arg His Lys Lys Cys Gly His Asp Asn Leu Gln  
 35 40 45  
 Leu Lys Lys Gly Cys Glu Ser Val Asp Lys Cys Lys Val His Lys Arg  
 50 55 60  
 Gly Tyr Asn Gly Leu Asn Gln Cys Leu Thr Thr Thr Gln Ser Lys Met  
 65 70 75 80  
 Phe Gln Cys Asp Lys His Gly Lys Val Phe His Gln Phe Ser Asn Thr  
 85 90 95  
 Asn Arg His Lys Ile Arg His Thr Gly Lys Asn Pro Cys Lys Phe Thr  
 100 105 110  
 Glu Cys Gly Lys Ala Phe Asn Arg Ser Ser Thr Phe Thr Thr His Lys  
 115 120 125  
 Lys Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ile Glu Cys Gly Lys  
 130 135 140  
 Ala Phe Asn Arg Ser Ser His Leu Thr Thr His Lys Ile Ile His Thr  
 145 150 155 160  
 Gly Glu Lys Arg Tyr Lys Cys Glu Asp Cys Gly Lys Ala Phe Asn Arg  
 165 170 175  
 Ser Ser Asn Leu Thr Thr His Lys Ile His Thr Gly Glu Lys Pro  
 180 185 190  
 Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Lys Arg Ser Ser Ile Leu  
 195 200 205  
 Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu  
 210 215 220  
 Glu Cys Gly Lys Val Phe Lys Tyr Leu Ser Ser Leu Ser Thr His Lys

225	230	235	240
Ile Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys			
245	250		255
Ala Phe Asn Trp Ser Ser His Leu Thr Thr His Lys Arg Ile His Thr			
260	265	270	
Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Gly Phe Lys Tyr			
275	280	285	
Ser Ser Thr Leu Thr Lys His Lys Ile Ile His Thr Gly Glu Lys Pro			
290	295	300	
Tyr Lys Cys Glu Glu Cys Arg Ser Leu Arg Ser Gln Cys Asp Gln Leu			
305	310	315	320
Glu Glu Arg Val Ser Val Met Glu Asp Glu Met Asn Gly Met Lys			
325	330	335	

<210> 4843

<211> 505

<212> PRT

<213> Homo sapiens

<400> 4843

Met Lys Ala Gln Arg Glu Arg Leu Gln Ile Pro Gly Leu Thr Leu Asp			
1	5	10	15
Leu Thr Pro Arg Ser Leu Ser Pro Thr Pro Ser Ser Pro Gly Ser Pro			
20	25	30	
Cys Ser Pro Leu Leu Ala Phe His Phe Trp Ser Cys Arg Thr Ser Asn			
35	40	45	
Arg Lys Ser Leu Ile Gly Asn Gly Gln Ser Pro Ala Leu Pro Arg Pro			
50	55	60	
His Ser Pro Leu Ser Ala His Ala Gly Asn Ser Pro Gln Asp Ser Pro			
65	70	75	80
Arg Asn Phe Ser Pro Ser Ala Ser Ala His Phe Ser Phe Ala Arg Arg			
85	90	95	
Asn Asp Arg Thr Asp Gly Arg Arg Trp Ser Leu Ala Ser Leu Pro Ser			
100	105	110	
Ser Gly Tyr Gly Thr Asn Thr Pro Ser Ser Thr Val Ser Ser Ser Cys			

115	120	125
Ser Ser Gln Glu Lys Leu His Gln Leu Pro Tyr Gln Pro Thr Pro Asp		
130	135	140
Glu Leu His Phe Leu Ser Lys His Phe Cys Thr Thr Glu Ser Ile Ala		
145	150	155
Thr Glu Asn Arg Cys Arg Asn Thr Pro Met His Pro Arg Ser Arg Ser		
165	170	175
Leu Ser Pro Gly Arg Ser Pro Ala Cys Cys Asp His Glu Ile Ile Met		
180	185	190
Met Asn His Val Tyr Lys Glu Arg Phe Pro Lys Ala Thr Ala Gln Met		
195	200	205
Glu Glu Arg Leu Lys Glu Ile Ile Thr Ser Tyr Ser Pro Asp Asn Val		
210	215	220
Leu Pro Leu Ala Asp Gly Val Leu Ser Phe Thr His His Gln Ile Ile		
225	230	235
Glu Leu Ala Arg Asp Cys Leu Asp Lys Ser His Gln Gly Leu Ile Thr		
245	250	255
Ser Arg Tyr Phe Leu Glu Leu Gln His Lys Leu Asp Lys Leu Leu Gln		
260	265	270
Glu Ala His Asp Arg Ser Glu Ser Gly Glu Leu Ala Phe Ile Lys Gln		
275	280	285
Leu Val Arg Lys Ile Leu Ile Val Ile Ala Arg Pro Ala Arg Leu Leu		
290	295	300
Glu Cys Leu Glu Phe Asp Pro Glu Glu Phe Tyr Tyr Leu Leu Glu Ala		
305	310	315
Ala Glu Gly His Ala Lys Glu Gly Gln Gly Ile Lys Thr Asp Ile Pro		
325	330	335
Arg Tyr Ile Ile Ser Gln Leu Gly Leu Asn Lys Asp Pro Leu Glu Glu		
340	345	350
Met Ala His Leu Gly Asn Tyr Asp Ser Gly Thr Ala Glu Thr Pro Glu		
355	360	365
Thr Asp Glu Ser Val Ser Ser Ser Asn Ala Ser Leu Lys Leu Arg Arg		
370	375	380
Lys Pro Arg Glu Ser Asp Phe Glu Thr Ile Lys Leu Ile Ser Asn Gly		
385	390	395
Ala Tyr Gly Ala Val Tyr Phe Val Arg His Lys Glu Ser Arg Gln Arg		

405	410	415
Phe Ala Met Lys Lys Ile Asn Lys Gln Asn Leu Ile Leu Arg Asn Gln		
420	425	430
Ile Gln Gln Ala Phe Val Glu Arg Asp Ile Leu Thr Phe Ala Glu Asn		
435	440	445
Pro Phe Val Val Ser Met Tyr Cys Ser Phe Glu Thr Arg Arg His Leu		
450	455	460
Cys Met Val Met Glu Tyr Val Glu Gly Gly Asp Cys Ala Thr Leu Met		
465	470	475
480		
Lys Asn Thr Gly Pro Leu Pro Val Asp Met Ala Arg Met Tyr Phe Ala		
485	490	495
Glu Thr Val Leu Ala Leu Glu Phe Thr		
500	505	

<210> 4844

<211> 408

<212> PRT

<213> Homo sapiens

<400> 4844

Met Arg Glu Lys Ser Phe Gln Cys Asn Glu Ser Gly Lys Ala Phe Asn		
1	5	10
15		
Tyr Ser Ser Leu Leu Arg Lys His Gln Ile Ile His Leu Gly Glu Lys		
20	25	30
Gln Tyr Lys Cys Asp Val Cys Gly Lys Val Phe Asn Arg Lys Arg Asn		
35	40	45
Leu Val Cys His Arg Arg Cys His Thr Gly Glu Lys Pro Tyr Arg Cys		
50	55	60
Asn Glu Cys Gly Lys Thr Phe Ser Gln Thr Tyr Ser Leu Thr Cys His		
65	70	75
80		
Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Asp		
85	90	95
Lys Ala Phe Ser Phe Lys Ser Asn Leu Lys Arg His Arg Arg Ile His		
100	105	110
Ala Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser		

115	120	125
Gln Thr Ser Ser Leu Thr Cys His Arg Arg Leu His Thr Gly Glu Lys		
130	135	140
Pro Phe Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Lys Ser Ser		
145	150	155
Leu Thr Cys His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys		
165	170	175
Asn Glu Cys Gly Lys Thr Phe Ser Gln Glu Leu Thr Leu Lys Cys His		
180	185	190
Arg Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
195	200	205
Lys Val Phe Asn Lys Lys Ala Asn Leu Ala Arg His His Arg Leu His		
210	215	220
Ser Gly Glu Lys Pro Tyr Lys Cys Thr Glu Cys Val Lys Thr Phe Ser		
225	230	235
Arg Asn Ser Ala Leu Val Ile His Lys Ala Ile His Ile Gly Glu Lys		
245	250	255
Arg Tyr Lys Cys Asn Glu Cys Gly Lys Thr Phe Ser Arg Ile Ser Ala		
260	265	270
Leu Val Ile His Thr Ala Ile His Thr Gly Glu Lys Pro Tyr Lys Cys		
275	280	285
Asn Glu Cys Gly Lys Gly Phe Asn Arg Lys Thr His Leu Ala Cys His		
290	295	300
His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly		
305	310	315
Lys Val Phe Asn Arg Lys Thr His Leu Ala His His Arg Leu His		
325	330	335
Thr Gly Asp Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn		
340	345	350
Gln Lys Ala His Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys		
355	360	365
Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Asn Gln Lys Ala Asn		
370	375	380
Leu Ala Arg His His Arg Leu His Thr Gly Glu Lys Pro Tyr Lys Phe		
385	390	395
400		

Asn Glu Cys Gly Lys Ala Phe Asn  
405

<210> 4845

<211> 596

<212> PRT

<213> Homo sapiens

<400> 4845

Met Leu Pro Ser Gln Ala Gln Gly Leu Leu Trp Trp Val Phe Pro Leu  
1 5 10 15  
Phe Pro Ala Ser Ser Leu Ser Tyr Pro Pro Val Ser Tyr Arg Ala Asp  
20 25 30  
Gly Leu Ala Arg Asn Thr Phe Leu Lys Ala Cys Ser Glu Ser Ser Ser  
35 40 45  
Ser Ser Asn Ile Ser Thr Met Leu Val Thr His Asp Tyr Thr Ala Val  
50 55 60  
Lys Glu Asp Glu Ile Asn Val Tyr Gln Gly Glu Val Val Gln Ile Leu  
65 70 75 80  
Ala Ser Asn Gln Gln Asn Met Phe Leu Val Phe Arg Ala Ala Thr Asp  
85 90 95  
Gln Cys Pro Ala Ala Glu Gly Trp Ile Pro Gly Phe Val Leu Gly His  
100 105 110  
Thr Ser Ala Val Ile Val Glu Asn Pro Asp Gly Thr Leu Lys Lys Ser  
115 120 125  
Thr Ser Trp His Thr Ala Leu Arg Leu Arg Lys Lys Ser Glu Lys Lys  
130 135 140  
Asp Lys Asp Gly Lys Arg Glu Gly Lys Leu Glu Asn Gly Tyr Arg Lys  
145 150 155 160  
Ser Arg Glu Gly Leu Ser Asn Lys Val Ser Val Lys Leu Leu Asn Pro  
165 170 175  
Asn Tyr Ile Tyr Asp Val Pro Pro Glu Phe Val Ile Pro Leu Ser Glu  
180 185 190  
Val Thr Cys Glu Thr Gly Glu Thr Val Val Leu Arg Cys Arg Val Cys  
195 200 205

Gly Arg Pro Lys Ala Ser Ile Thr Trp Lys Gly Pro Glu His Asn Thr  
 210 215 220  
 Leu Asn Asn Asp Gly His Tyr Ser Ile Ser Tyr Ser Asp Leu Gly Glu  
 225 230 235 240  
 Ala Thr Leu Lys Ile Val Gly Val Thr Thr Glu Asp Asp Gly Ile Tyr  
 245 250 255  
 Thr Cys Ile Ala Val Asn Asp Met Gly Ser Ala Ser Ser Ala Ser  
 260 265 270  
 Leu Arg Val Leu Gly Pro Gly Met Asp Gly Ile Met Val Thr Trp Lys  
 275 280 285  
 Asp Asn Phe Asp Ser Phe Tyr Ser Glu Val Ala Glu Leu Gly Arg Gly  
 290 295 300  
 Arg Phe Ser Val Val Lys Lys Cys Asp Gln Lys Gly Thr Lys Arg Ala  
 305 310 315 320  
 Val Ala Thr Lys Phe Val Asn Lys Lys Leu Met Lys Arg Asp Gln Val  
 325 330 335  
 Thr His Glu Leu Gly Ile Leu Gln Ser Leu Gln His Pro Leu Leu Val  
 340 345 350  
 Gly Leu Leu Asp Thr Phe Glu Thr Pro Thr Ser Tyr Ile Leu Val Leu  
 355 360 365  
 Glu Met Ala Asp Gln Gly Arg Leu Leu Asp Cys Val Val Arg Trp Gly  
 370 375 380  
 Ser Leu Thr Glu Gly Lys Ile Arg Ala His Leu Gly Glu Val Leu Glu  
 385 390 395 400  
 Ala Val Arg Tyr Leu His Asn Cys Arg Ile Ala His Leu Asp Leu Lys  
 405 410 415  
 Pro Glu Asn Ile Leu Val Asp Glu Ser Leu Ala Lys Pro Thr Ile Lys  
 420 425 430  
 Leu Ala Asp Phe Gly Asp Ala Val Gln Leu Asn Thr Thr Tyr Tyr Ile  
 435 440 445  
 His Gln Leu Leu Gly Asn Pro Glu Phe Ala Ala Pro Glu Ile Ile Leu  
 450 455 460  
 Gly Asn Pro Val Ser Leu Thr Ser Asp Thr Trp Ser Val Gly Val Leu  
 465 470 475 480  
 Thr Tyr Val Leu Leu Ser Gly Val Ser Pro Phe Leu Asp Asp Ser Val  
 485 490 495

Glu Glu Thr Cys Leu Asn Ile Cys Arg Leu Asp Phe Ser Phe Pro Asp  
 500 505 510  
 Asp Tyr Phe Lys Gly Val Ser Gln Lys Ala Lys Glu Phe Val Cys Phe  
 515 520 525  
 Leu Leu Gln Glu Asp Pro Ala Lys Arg Pro Ser Ala Ala Leu Ala Leu  
 530 535 540  
 Gln Glu Gln Trp Leu Gln Ala Gly Asn Gly Arg Ser Thr Gly Val Leu  
 545 550 555 560  
 Asp Thr Ser Arg Leu Thr Ser Phe Ile Glu Arg Arg Lys His Gln Asn  
 565 570 575  
 Asp Val Arg Pro Ile Arg Ser Ile Lys Asn Phe Leu Gln Ser Arg Leu  
 580 585 590  
 Leu Pro Arg Val  
 595

<210> 4846

<211> 569

<212> PRT

<213> Homo sapiens

<400> 4846

Met Pro Ser Ser Leu Phe Ala Asp Leu Glu Arg Asn Gly Ser Gly Gly  
 1 5 10 15  
 Gly Gly Gly Ser Ser Gly Gly Gly Glu Thr Leu Asp Asp Gln Arg  
 20 25 30  
 Ala Leu Gln Leu Ala Leu Asp Gln Leu Ser Leu Leu Gly Leu Asp Ser  
 35 40 45  
 Asp Glu Gly Ala Ser Leu Tyr Asp Ser Glu Pro Arg Lys Lys Ser Val  
 50 55 60  
 Asn Met Thr Glu Cys Val Pro Val Pro Ser Ser Glu His Val Ala Glu  
 65 70 75 80  
 Ile Val Gly Arg Gln Gly Cys Lys Ile Lys Ala Leu Arg Ala Lys Thr  
 85 90 95  
 Asn Thr Tyr Ile Lys Thr Pro Val Arg Gly Glu Glu Pro Val Phe Val  
 100 105 110

Val Thr Gly Arg Lys Glu Asp Val Ala Met Ala Arg Arg Glu Ile Ile  
 115 120 125  
 Ser Ala Ala Glu His Phe Ser Met Ile Arg Ala Ser Arg Asn Lys Asn  
 130 135 140  
 Thr Ala Leu Asn Gly Ala Val Pro Gly Pro Pro Asn Leu Pro Gly Gln  
 145 150 155 160  
 Thr Thr Ile Gln Val Arg Val Pro Tyr Arg Val Val Gly Leu Val Val  
 165 170 175  
 Gly Pro Lys Gly Ala Thr Ile Lys Arg Ile Gln Gln Gln Thr His Thr  
 180 185 190  
 Tyr Ile Val Thr Pro Ser Arg Asp Lys Glu Pro Val Phe Glu Val Thr  
 195 200 205  
 Gly Met Pro Glu Asn Val Asp Arg Ala Arg Glu Glu Ile Glu Ala His  
 210 215 220  
 Ile Ala Leu Arg Thr Gly Gly Ile Ile Glu Leu Thr Asp Glu Asn Asp  
 225 230 235 240  
 Phe His Ala Asn Gly Thr Asp Val Gly Phe Asp Leu His His Gly Ser  
 245 250 255  
 Gly Gly Ser Gly Pro Gly Ser Leu Trp Ser Lys Pro Thr Pro Ser Ile  
 260 265 270  
 Thr Pro Thr Pro Gly Arg Lys Pro Phe Ser Ser Tyr Arg Asn Asp Ser  
 275 280 285  
 Ser Ser Ser Leu Gly Ser Ala Ser Thr Asp Ser Tyr Phe Gly Gly  
 290 295 300  
 Thr Ser Ser Ser Ala Ala Ala Thr Gln Arg Leu Ala Asp Tyr Ser Pro  
 305 310 315 320  
 Pro Ser Pro Ala Leu Ser Phe Ala His Asn Gly Asn Asn Asn Asn  
 325 330 335  
 Gly Asn Gly Tyr Thr Tyr Thr Ala Gly Gly Glu Ala Ser Val Pro Ser  
 340 345 350  
 Pro Asp Gly Cys Pro Glu Leu Gln Pro Thr Phe Asp Pro Ala Pro Ala  
 355 360 365  
 Pro Pro Pro Gly Ala Pro Leu Ile Trp Ala Gln Phe Glu Arg Ser Pro  
 370 375 380  
 Gly Gly Gly Pro Ala Ala Pro Val Ser Ser Ser Cys Ser Ser Ser Ala  
 385 390 395 400

Ser Ser Ser Ala Ser Ser Ser Val Val Phe Pro Gly Gly Gly Ala  
                   405                  410                  415  
 Ser Ala Pro Ser Asn Ala Asn Leu Gly Leu Leu Val His Arg Arg Leu  
                   420                  425                  430  
 His Pro Gly Thr Ser Cys Pro Arg Leu Ser Pro Pro Leu His Met Ala  
                   435                  440                  445  
 Pro Gly Ala Gly Glu His His Leu Ala Arg Arg Val Arg Ser Asp Pro  
                   450                  455                  460  
 Gly Gly Gly Gly Leu Ala Tyr Ala Ala Tyr Ala Asn Gly Leu Gly Ala  
                   465                  470                  475                  480  
 Gln Leu Pro Gly Leu Gln Pro Ser Asp Thr Ser Gly Ser Ser Ser  
                   485                  490                  495  
 Ser Gly Leu Arg Arg  
                   500                  505                  510  
 Lys Gly Ser Arg Asp Cys Ser Val Cys Phe Glu Ser Glu Val Ile Ala  
                   515                  520                  525  
 Ala Leu Val Pro Cys Gly His Asn Leu Phe Cys Met Glu Cys Ala Asn  
                   530                  535                  540  
 Arg Ile Cys Glu Lys Ser Glu Pro Glu Cys Pro Val Cys His Thr Ala  
                   545                  550                  555                  560  
 Val Thr Gln Ala Ile Arg Ile Phe Ser  
                                   565

<210> 4847

<211> 302

<212> PRT

<213> Homo sapiens

<400> 4847

Met Ala Leu Leu Ile Thr Pro Ala Gly Val Ala Thr Val Asn Arg His  
                   1                  5                  10                  15  
 Ser Thr Ile Pro Ser Asp Thr His Thr Ser Arg Glu Lys Pro Arg Phe  
                   20                  25                  30  
 His Lys Pro Cys Arg Asn Asp Leu Glu Ser Leu Leu Ser Glu Gly Arg  
                   35                  40                  45

Leu Asp Thr Ser Val Gln Thr Pro Cys Pro Gln His Pro His Thr Gln  
 50 55 60  
 Leu Ser Cys Glu Pro Gln Pro Leu Glu His Ser Ser Cys Leu Ser Thr  
 65 70 75 80  
 Cys Leu Ala Gly Cys Phe Leu Pro Val Pro Ser Ser Pro His Thr His  
 85 90 95  
 Pro Leu Leu Pro Gly Ser Arg Trp Leu Pro Pro Pro Leu Ala Leu Leu  
 100 105 110  
 Met Gly Thr Leu Ser Pro Gly Leu Ala Val Lys Pro Ser Trp Val Pro  
 115 120 125  
 Arg Phe Pro Leu Leu Ala Arg Gln Ser Pro Ala Thr Ser Val Gly Met  
 130 135 140  
 Pro Leu Ser Ala Ala Thr Gln Pro Gly Ser Val Gly Arg Leu His Phe  
 145 150 155 160  
 Pro Lys Leu Arg Ser Ser Ser Pro Phe Ser Gly His Ser Asp Glu Asn  
 165 170 175  
 Lys Ala Thr Gly Gln Gly Arg Glu Asn Arg Asp Gln Pro Gln Arg Pro  
 180 185 190  
 Ser His Leu Cys Glu Cys Pro Glu Ala Ala Lys Gln Ser Ala Thr Asn  
 195 200 205  
 Gly Val Ala Glu Thr Asn Arg Ser Val Phe Pro Leu Gly Ser Glu Ala  
 210 215 220  
 Arg Ser Leu Ser Leu Arg Arg Gln Glu Ser Gln Pro His Ser Gly Ser  
 225 230 235 240  
 Ser Arg Arg Glu Ser Val Ser Cys Ser Pro Ser Phe Trp Cys Cys Trp  
 245 250 255  
 Gln Pro Leu Ala Phe Leu Thr Cys Gly Cys Ala Ala Pro Ile Ser Val  
 260 265 270  
 Pro Gly Val Thr Arg Pro Ser Pro Arg Pro Cys Cys Val Ser Pro Pro  
 275 280 285  
 Leu Val Arg Leu Gln Ser Leu Gly Leu Gly Pro Thr Gln Ile  
 290 295 300

&lt;210&gt; 4848

&lt;211&gt; 449

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4848

Met	Pro	Gly	Met	Met	Glu	Lys	Gly	Pro	Glu	Leu	Leu	Gly	Lys	Asn	Arg
1				5				10						15	
Ser	Ala	Asn	Gly	Ser	Ala	Lys	Ser	Pro	Ala	Gly	Gly	Gly	Ser	Gly	
				20				25					30		
Ala	Ser	Ser	Thr	Asn	Gly	Gly	Leu	His	Tyr	Ser	Glu	Pro	Glu	Ser	Gly
				35				40				45			
Cys	Ser	Ser	Asp	Asp	Glu	His	Asp	Val	Gly	Met	Arg	Val	Gly	Ala	Glu
				50				55			60				
Tyr	Gln	Ala	Arg	Ile	Pro	Glu	Phe	Asp	Pro	Gly	Ala	Thr	Lys	Tyr	Thr
				65			70			75			80		
Asp	Lys	Asp	Asn	Gly	Gly	Met	Leu	Val	Trp	Ser	Pro	Tyr	His	Ser	Ile
				85			90			95					
Pro	Asp	Ala	Lys	Leu	Asp	Glu	Tyr	Ile	Ala	Ile	Ala	Lys	Glu	Lys	His
				100			105			110					
Gly	Tyr	Asn	Val	Glu	Gln	Ala	Leu	Gly	Met	Leu	Phe	Trp	His	Lys	His
				115			120			125					
Asn	Ile	Glu	Lys	Ser	Leu	Ala	Asp	Leu	Pro	Asn	Phe	Thr	Pro	Phe	Pro
				130			135			140					
Asp	Glu	Trp	Thr	Val	Glu	Asp	Lys	Val	Leu	Phe	Glu	Gln	Ala	Phe	Ser
				145			150			155			160		
Phe	His	Gly	Lys	Ser	Phe	His	Arg	Ile	Gln	Gln	Met	Leu	Pro	Asp	Lys
				165			170			175					
Thr	Ile	Ala	Ser	Leu	Val	Lys	Tyr	Tyr	Ser	Trp	Lys	Thr	Arg		
				180			185			190					
Ser	Arg	Thr	Ser	Leu	Met	Asp	Arg	Gln	Ala	Arg	Lys	Leu	Ala	Asn	Arg
				195			200			205					
His	Asn	Gln	Gly	Asp	Ser	Asp	Asp	Asp	Val	Glu	Glu	Thr	His	Pro	Met
				210			215			220					
Asp	Gly	Asn	Asp	Ser	Asp	Tyr	Asp	Pro	Lys	Lys	Glu	Ala	Lys	Lys	Glu
				225			230			235			240		
Gly	Asn	Thr	Glu	Gln	Pro	Val	Gln	Thr	Ser	Lys	Ile	Gly	Leu	Gly	Arg
				245			250			255					

Arg Glu Tyr Gln Ser Leu Gln His Arg His His Ser Gln Arg Ser Lys  
 260 265 270  
 Cys Arg Pro Pro Lys Gly Met Tyr Leu Thr Gln Glu Asp Val Val Ala  
 275 280 285  
 Val Ser Cys Ser Pro Asn Ala Ala Asn Thr Ile Leu Arg Gln Leu Asp  
 290 295 300  
 Met Glu Leu Ile Ser Leu Lys Arg Gln Val Gln Asn Ala Lys Gln Val  
 305 310 315 320  
 Asn Ser Ala Leu Lys Gln Lys Met Glu Gly Gly Ile Glu Glu Phe Lys  
 325 330 335  
 Pro Pro Glu Ser Asn Gln Lys Ile Asn Ala Arg Trp Thr Thr Glu Glu  
 340 345 350  
 Gln Leu Leu Ala Val Gln Gly Val Arg Lys Tyr Gly Lys Asp Phe Gln  
 355 360 365  
 Ala Ile Ala Asp Val Ile Gly Asn Lys Thr Val Gly Gln Val Lys Asn  
 370 375 380  
 Phe Phe Val Asn Tyr Arg Arg Arg Phe Asn Leu Glu Glu Val Leu Gln  
 385 390 395 400  
 Glu Trp Glu Ala Glu Gln Gly Thr Gln Ala Ser Asn Gly Asp Ala Ser  
 405 410 415  
 Thr Leu Gly Glu Glu Thr Lys Ser Ala Ser Asn Val Pro Ser Gly Lys  
 420 425 430  
 Ser Thr Asp Glu Glu Glu Val Cys Leu Cys Met Glu Phe Glu Leu  
 435 440 445  
 Ile

<210> 4849

<211> 244

<212> PRT

<213> Homo sapiens

<400> 4849

Met Thr Gly Ser Asn Ser His Ile Thr Ile Leu Thr Val Asn Ile Asn

1	5	10	15												
Gly	Leu	Asn	Ala	Pro	Ile	Lys	Gly	His	Arg	Leu	Ala	Asn	Trp	Ile	Lys
20															
Ser	Gln	Asp	Pro	Ser	Val	Cys	Cys	Ile	Gln	Glu	Thr	His	Leu	Met	Arg
35															
Lys	Phe	Thr	His	Arg	Phe	Asn	Ile	Lys	Gly	Trp	Arg	Lys	Ile	Tyr	Gln
50															
Glu	Asn	Gly	Lys	Gln	Lys	Lys	Ala	Gly	Val	Ala	Ile	Leu	Val	Ser	Asp
65															
Lys	Thr	Asp	Phe	Lys	Pro	Thr	Lys	Ile	Lys	Gly	Asp	Lys	Gly	His	Tyr
85															
Ile	Met	Val	Lys	Gly	Ser	Met	Gln	Gln	Glu	Glu	Leu	Thr	Ile	Leu	Asn
100															
Ile	Tyr	Ala	Pro	Asn	Thr	Arg	Ala	Pro	Arg	Phe	Ile	Lys	Gln	Val	Leu
115															
Arg	Asp	Leu	Gln	Arg	Asp	Leu	Asp	Ser	His	Thr	Ile	Ile	Met	Gly	Asp
130															
Phe	Asn	Thr	Glu	Leu	Ser	Ile	Leu	Glu	Arg	Ser	Thr	Arg	Gln	Lys	Val
145															
Asn	Lys	Asp	Ile	Gln	Asp	Leu	Asn	Ser	Ala	Leu	Gln	Gln	Thr	Asp	Pro
165															
Ile	Asp	Ile	His	Arg	Asn	Leu	His	Leu	Lys	Ser	Thr	Glu	Tyr	Thr	Leu
180															
Phe	Ser	Ala	Pro	His	Ile	Thr	Tyr	Ser	Lys	Phe	Asp	His	Ile	Ile	Gly
195															
Ser	Lys	Ala	Leu	Leu	Thr	Lys	Cys	Lys	Arg	Thr	Glu	Ile	Thr	Thr	Asn
210															
Cys	Leu	Leu	Asp	His	Ser	Ala	Ile	Lys	Phe	Glu	Leu	Arg	Ile	Lys	Lys
225															
Leu	Thr	Gln	Asn												

&lt;210&gt; 4850

&lt;211&gt; 695

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4850

Met Val Tyr Pro Tyr Pro Gly Ala Arg Ala Glu Glu Lys Leu Gly Gly  
 1 5 10 15  
 Thr Arg Asp Pro Thr Tyr Gln Glu Arg Ala Ala Pro Gln Thr Gln Pro  
 20 25 30  
 Leu Gly Lys Glu Thr Asp Ser Leu Ser Ala Gly Phe Val Val Val Met  
 35 40 45  
 Gly Val Asp Leu Ser Arg Cys Gly Pro Asp His Thr Ala Ser Arg Cys  
 50 55 60  
 Pro Trp Asp Pro Gly Leu Leu Leu Arg Phe Leu Ala Ala Met Ala Ala  
 65 70 75 80  
 Val Gly Ala Leu Glu Pro Leu Leu Pro Gly Pro Leu Leu Ala Val His  
 85 90 95  
 Pro His Ala Gly Thr Ala Pro Pro Ala Asn Gln Leu Pro Trp Pro Val  
 100 105 110  
 Leu Cys Ser Pro Val Ala Gly Val Ile Leu Leu Ala Leu Gly Ala Leu  
 115 120 125  
 Leu Val Leu Gln Leu Ile Arg Arg Arg Arg Arg Glu His Gly Ala Leu  
 130 135 140  
 Trp Leu Pro Pro Gly Phe Thr Arg Arg Pro Arg Thr Gln Ser Ala Pro  
 145 150 155 160  
 His Arg Arg Arg Pro Pro Leu Gly Glu Asp Ser Ile Gly Leu Lys Ala  
 165 170 175  
 Leu Lys Pro Lys Ala Glu Val Asp Glu Asp Gly Val Val Met Cys Ser  
 180 185 190  
 Gly Pro Glu Glu Gly Glu Ala Glu Glu Thr Gly Pro Pro Ser Thr  
 195 200 205  
 Cys Gln Leu Trp Ser Leu Ser Gly Gly Cys Gly Ala Leu Pro Gln Ala  
 210 215 220  
 Ala Met Leu Thr Pro Pro Gln Glu Ser Glu Met Glu Ala Pro Asp Leu  
 225 230 235 240  
 Asp Thr Arg Gly Pro Asp Gly Val Thr Pro Leu Met Ser Ala Val Cys  
 245 250 255  
 Cys Gly Glu Val Gln Ser Gly Thr Phe Gln Gly Ala Trp Leu Gly Cys

260	265	270
Pro Glu Pro Trp Glu Pro Leu Leu Asp Gly Gly Ala Cys Pro Gln Ala		
275	280	285
His Thr Val Gly Thr Gly Glu Thr Pro Leu His Leu Ala Ala Arg Phe		
290	295	300
Ser Arg Pro Thr Ala Ala Arg Arg Leu Leu Glu Ala Gly Ala Asn Pro		
305	310	315
Asn Gln Pro Asp Arg Ala Gly Arg Thr Pro Leu His Ala Ala Val Ala		
325	330	335
Ala Asp Ala Arg Glu Val Cys Gln Leu Leu Leu Arg Ser Arg Gln Thr		
340	345	350
Ala Val Asp Ala Arg Thr Glu Asp Gly Thr Thr Pro Leu Met Leu Ala		
355	360	365
Ala Arg Leu Ala Val Glu Asp Leu Val Glu Glu Leu Ile Ala Ala Gln		
370	375	380
Ala Asp Val Gly Ala Arg Asp Lys Trp Gly Lys Thr Ala Leu His Trp		
385	390	395
Ala Ala Ala Val Asn Asn Ala Arg Ala Ala Arg Ser Leu Leu Gln Ala		
405	410	415
Gly Ala Asp Lys Asp Ala Gln Asp Asn Arg Glu Gln Thr Pro Leu Phe		
420	425	430
Leu Ala Ala Arg Glu Gly Ala Val Glu Val Ala Gln Leu Leu Gly		
435	440	445
Leu Gly Ala Ala Arg Glu Leu Arg Asp Gln Ala Gly Leu Ala Pro Ala		
450	455	460
Asp Val Ala His Gln Arg Asn His Trp Asp Leu Leu Thr Leu Leu Glu		
465	470	475
Gly Ala Gly Pro Pro Glu Ala Arg His Lys Ala Thr Pro Gly Arg Glu		
485	490	495
Ala Gly Pro Phe Pro Arg Ala Arg Thr Val Ser Val Ser Val Pro Pro		
500	505	510
His Gly Gly Gly Ala Leu Pro Arg Cys Arg Thr Leu Ser Ala Gly Ala		
515	520	525
Gly Pro Arg Gly Gly Ala Cys Leu Gln Ala Arg Thr Trp Ser Val		
530	535	540
Asp Leu Ala Ala Arg Gly Gly Ala Tyr Ser His Cys Arg Ser Leu		

545	550	555	560
Ser Gly Val Gly Ala Gly Gly Pro Thr Pro Arg Gly Arg Arg Phe			
565	570	575	
Ser Ala Gly Met Arg Gly Pro Arg Pro Asn Pro Ala Ile Met Arg Gly			
580	585	590	
Arg Tyr Gly Val Ala Ala Gly Arg Gly Gly Arg Val Ser Thr Asp Asp			
595	600	605	
Trp Pro Cys Asp Trp Val Ala Leu Gly Ala Cys Gly Ser Ala Ser Asn			
610	615	620	
Ile Pro Ile Pro Pro Cys Leu Thr Pro Ser Pro Glu Arg Gly Ser			
625	630	635	640
Pro Gln Leu Asp Cys Gly Pro Pro Ala Leu Gln Glu Met Pro Ile Asn			
645	650	655	
Gln Gly Glu Gly Lys Lys Ile Glu Glu Tyr Met Val Gly Arg Asn			
660	665	670	
Ser Lys Asn Asp Tyr Pro Leu Lys Gly Arg Leu Glu Gly Leu Pro Gly			
675	680	685	
Phe Lys Met Asp Pro Pro Lys			
690	695		

<210> 4851

<211> 211

<212> PRT

<213> Homo sapiens

<400> 4851

Met Ser Ser Val Val Gly Leu Phe Leu Cys Phe Thr Ser Cys Ser Ser			
1	5	10	15
His Phe Ser Leu Tyr Leu Pro Lys Ser Trp Thr Ile Gln Val Gly Leu			
20	25	30	
Val Ser Leu Leu Asp Asn Pro Ala Pro Ser His Leu Val Glu Lys Ile			
35	40	45	
Val Tyr His Ser Lys Tyr Lys Pro Lys Arg Leu Gly Asn Asp Ile Ala			
50	55	60	
Leu Met Lys Leu Ala Gly Pro Leu Thr Phe Asn Glu Met Ile Gln Pro			

65	70	75	80
Val Cys Leu Pro Asn Ser Glu Glu Asn Phe Pro Asp Gly Lys Val Cys			
85	90	95	
Trp Thr Ser Gly Trp Gly Ala Thr Glu Asp Gly Gly Asp Ala Ser Pro			
100	105	110	
Val Leu Asn His Ala Ala Val Pro Leu Ile Ser Asn Lys Ile Cys Asn			
115	120	125	
His Arg Asp Val Tyr Gly Gly Ile Ile Ser Pro Ser Met Leu Cys Ala			
130	135	140	
Gly Tyr Leu Thr Gly Gly Val Asp Ser Cys Gln Gly Asp Ser Gly Gly			
145	150	155	160
Pro Leu Val Cys Gln Glu Arg Arg Leu Trp Lys Leu Val Gly Ala Thr			
165	170	175	
Ser Phe Gly Ile Gly Cys Ala Glu Val Asn Lys Pro Gly Val Tyr Thr			
180	185	190	
Arg Val Thr Ser Phe Leu Asp Trp Ile His Glu Gln Met Glu Arg Asp			
195	200	205	
Leu Lys Thr			
210			

<210> 4852

<211> 193

<212> PRT

<213> Homo sapiens

<400> 4852

Met His Ala Leu Lys Met Thr Trp His Val His Cys Phe Thr Cys Ala			
1	5	10	15
Ala Cys Lys Thr Pro Ile Arg Asn Arg Ala Phe Tyr Met Glu Glu Gly			
20	25	30	
Val Pro Tyr Cys Glu Arg Gly Thr His Trp Pro Val Arg Val Arg Arg			
35	40	45	
Asp Gly Ala Trp Gly Arg His Glu Ser Arg Ser Ser Phe Ser Leu Pro			
50	55	60	
Pro Phe Ser Asp Tyr Glu Lys Met Phe Gly Thr Lys Cys His Gly Cys			

65	70	75	80
Asp Phe Lys Ile Asp Ala Gly Asp Arg Phe Leu Glu Ala Leu Gly Phe			
85	90	95	
Ser Trp His Asp Thr Cys Phe Val Cys Ala Val Arg Ala Pro Pro Leu			
100	105	110	
Glu Leu Ser Pro Lys Pro Thr Gly Pro Leu Phe Ile Pro Gln Glu Met			
115	120	125	
Gln Glu Lys Leu Gly Arg Gly Leu Ser Cys Cys Pro Gln Pro His Val			
130	135	140	
Thr Gly Pro Leu Leu Ser Leu Asp Met Ser Asp Gln Pro Gly Arg Lys			
145	150	155	160
Asp Leu Leu Leu Gln Glu Gly Gln Ala Ser Leu Gln Glu Pro Cys Leu			
165	170	175	
Leu Ser Cys Val Ser Pro Phe Cys Pro Gln Leu Pro Arg Trp Pro Leu			
180	185	190	
Ala			

<210> 4853

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4853

Met Cys Gln Val Tyr Phe Val Lys Leu Leu Ile Leu Gly Val Leu Leu			
1	5	10	15
Cys Phe Leu Leu Val Arg Gln Asp Leu Thr Leu Ser Pro Arg Leu Glu			
20	25	30	
Cys Ser Gly Ala Ile Trp Ala His Cys Asn Pro Arg Leu Leu Gly Ile			
35	40	45	
Ser Asn Leu Pro Ala Leu Ala Ser Gln Val Ala Glu Thr Thr Gly Met			
50	55	60	
Ser His His Thr Gln Leu Thr Thr Cys Asn Phe Phe Asp Arg Asp Arg			
65	70	75	80
Ser Cys His Val Thr Gln Thr Asp Leu Lys Thr Pro Gly Leu Arg Arg			

85	90	95
Pro Thr His Leu Gly Leu Pro Lys Cys Trp Asp Tyr Arg Cys Glu Pro		
100	105	110
Leu His Leu Thr Gln Phe Val Ile Leu Asn Leu Phe Leu Leu Ser Cys		
115	120	125
Phe Ser Phe Phe Phe Leu		
130		

<210> 4854

<211> 568

<212> PRT \

<213> Homo sapiens

<400> 4854

Met Gly Ser Glu Val Val Ala Gly Asn Ser Val Gly Pro Thr Met Gly			
1	5	10	15
Ala Ala Ser Ser Gly Pro Leu Pro Pro Pro Pro Pro Leu Pro Pro			
20	25	30	
Ser Ser Asp Thr Pro Glu Thr Val Gln Asn Gly Pro Val Thr Pro Pro			
35	40	45	
Met Pro Pro Pro Pro Pro Leu Pro Gly Pro Ala Ala Glu Thr Val Pro			
50	55	60	
Ala Pro Pro Leu Ala Pro Pro Leu Pro Ser Ala Pro Pro Leu Pro Gly			
65	70	75	80
Thr Ser Ser Pro Thr Val Val Phe Asn Ser Gly Leu Ala Ala Val Lys			
85	90	95	
Ile Lys Lys Pro Ile Lys Thr Lys Phe Arg Met Pro Val Phe Asn Trp			
100	105	110	
Val Ala Leu Lys Pro Asn Gln Ile Asn Gly Thr Val Phe Asn Glu Ile			
115	120	125	
Asp Asp Glu Arg Ile Leu Glu Asp Leu Asn Val Asp Glu Phe Glu Glu			
130	135	140	
Ile Phe Lys Thr Lys Ala Gln Gly Pro Ala Ile Asp Leu Ser Ser Ser			
145	150	155	160
Lys Gln Lys Ile Pro Gln Lys Gly Ser Asn Lys Val Thr Leu Leu Glu			

165	170	175	
Ala Asn Arg Ala Lys Asn Leu Ala Ile Thr Leu Arg Lys Ala Gly Lys			
180	185	190	
Thr Ala Asp Glu Ile Cys Lys Ala Ile His Val Phe Asp Leu Lys Thr			
195	200	205	
Leu Pro Val Asp Phe Val Glu Cys Leu Met Arg Phe Leu Pro Thr Glu			
210	215	220	
Asn Glu Val Lys Val Leu Arg Leu Tyr Glu Arg Glu Arg Lys Pro Leu			
225	230	235	240
Glu Asn Leu Ser Asp Glu Asp Arg Phe Met Met Gln Phe Ser Lys Ile			
245	250	255	
Glu Arg Leu Met Gln Lys Met Thr Ile Met Ala Phe Ile Gly Asn Phe			
260	265	270	
Ala Glu Ser Ile Gln Met Leu Thr Pro Gln Leu His Ala Ile Ile Ala			
275	280	285	
Ala Ser Val Ser Ile Lys Ser Ser Gln Lys Leu Lys Lys Ile Leu Glu			
290	295	300	
Ile Ile Leu Ala Leu Gly Asn Tyr Met Asn Ser Ser Lys Arg Gly Ala			
305	310	315	320
Val Tyr Gly Phe Lys Leu Gln Ser Leu Asp Leu Leu Leu Asp Thr Lys			
325	330	335	
Ser Thr Asp Arg Lys Gln Thr Leu Leu His Tyr Ile Ser Asn Val Val			
340	345	350	
Lys Glu Lys Tyr His Gln Val Ser Leu Phe Tyr Asn Glu Leu His Tyr			
355	360	365	
Val Glu Lys Ala Ala Ala Val Ser Leu Glu Asn Val Leu Leu Asp Val			
370	375	380	
Lys Glu Leu Gln Arg Gly Met Asp Leu Thr Lys Arg Glu Tyr Thr Met			
385	390	395	400
His Asp His Asn Thr Leu Leu Lys Glu Phe Ile Leu Asn Asn Glu Gly			
405	410	415	
Lys Leu Lys Leu Gln Asp Asp Ala Lys Ile Ala Gln Asp Ala Phe			
420	425	430	
Asp Asp Val Val Lys Tyr Phe Gly Glu Asn Pro Lys Thr Thr Pro Pro			
435	440	445	
Ser Val Phe Phe Pro Val Phe Val Arg Phe Val Lys Ala Tyr Lys Gln			

450	455	460
Ala Glu Glu Glu Asn Glu Leu Arg Lys Lys Gln Glu Gln Ala Leu Met		
465	470	475
Glu Lys Leu Leu Glu Gln Glu Ala Leu Met Glu Gln Gln Asp Pro Lys		
485	490	495
Ser Pro Ser His Lys Ser Lys Arg Gln Gln Gln Glu Leu Ile Ala Glu		
500	505	510
Leu Arg Arg Arg Gln Val Lys Asp Asn Arg His Val Tyr Glu Gly Lys		
515	520	525
Asp Gly Ala Ile Glu Asp Ile Ile Thr Ala Leu Lys Lys Asn Asn Ile		
530	535	540
Thr Lys Phe Pro Asn Val His Ser Arg Val Arg Ile Ser Ser Ser Thr		
545	550	555
Pro Val Val Glu Asp Thr Gln Ser		
	565	

<210> 4855

<211> 415

<212> PRT

<213> Homo sapiens

<400> 4855

Met Thr Leu Ala Ala Ser Ser Gln Arg Ser Gln Ile Ile Arg Ser Lys			
1	5	10	15
Phe Arg Ser Val Leu Gln Leu Arg Ile His Arg Arg Asn Gln Glu Gln			
20	25	30	
Ile Ser Asp Pro Asp Pro Trp Ile Ser Ala Ser Asp Pro Pro Leu Ala			
35	40	45	
Pro Ala Leu Pro Ser Gly Thr Ala Pro Phe Leu Phe Ser Pro Gly Val			
50	55	60	
Leu Leu Pro Glu Pro Glu Tyr Cys Pro Pro Trp Arg Ser Pro Lys Lys			
65	70	75	80
Glu Ser Pro Lys Ile Ser Gln Arg Trp Arg Glu Ser Lys Pro Arg Gly			
85	90	95	
Asn Leu Thr Tyr His Gln Tyr Met Pro Pro Glu Pro Arg Gln Gly Ser			

100	105	110	
Arg Ala Asp Pro Gln Ala Glu Gly Ser Ala Leu Gly Pro Pro Gly Pro			
115	120	125	
Ser Leu Trp Glu Gly Thr Asp Ser Gln Gln Pro His Pro Arg Met Lys			
130	135	140	
Pro Ser Pro Leu Thr Pro Cys Pro Pro Gly Val Pro Ser Pro Ser Pro			
145	150	155	160
Pro Pro His Lys Leu Glu Leu Gln Thr Leu Lys Leu Glu Glu Leu Thr			
165	170	175	
Val Ser Glu Leu Arg Gln Gln Leu Arg Leu Arg Gly Leu Pro Val Ser			
180	185	190	
Gly Thr Lys Ser Met Leu Leu Glu Arg Met Arg Gly Gly Ala Pro Pro			
195	200	205	
Arg Glu Arg Pro Lys Pro Arg Arg Glu Asp Ser Pro Ala Gly Ala Pro			
210	215	220	
Trp Pro Arg Leu Lys Pro Lys Ala Leu Ala Ala Ala Arg Arg Gln Gly			
225	230	235	240
Ser Val Lys Pro Ser Ala Ala Ser His Arg Pro Pro Leu Pro Arg Ala			
245	250	255	
Ala Asp Thr Pro Gly Thr Ala Pro Ala Pro Thr Pro Thr Pro Ala Pro			
260	265	270	
Ala Ala Ala Pro Ala Leu Thr Pro Ser Ser Gly Pro Gly Ser Ala Ala			
275	280	285	
Leu Thr Leu Glu Glu Glu Leu Gln Glu Ala Ile Arg Arg Ala Gln Leu			
290	295	300	
Leu Pro Asn Arg Gly Ile Asp Asp Ile Leu Glu Asp Gln Val Glu Pro			
305	310	315	320
Asp Asp Pro Leu Pro Pro Ile Pro Leu Asp Phe Pro Gly Ser Phe Asp			
325	330	335	
Val Leu Ser Pro Ser Pro Asp Ser Glu Gly Leu Ser Ser Val Phe Ser			
340	345	350	
Ser Ser Leu Pro Ser Pro Thr Asn Ser Ser Ser Pro Ser Pro Arg Asp			
355	360	365	
Pro Thr Asp Ser Leu Asp Trp Leu Glu Ala Leu Ser Gly Gly Pro Pro			
370	375	380	
Leu Gly Ser Gly Pro Pro Pro Ser Ile Phe Ser Ala Asp Leu Ser			

385	390	395	400
Asp Ser Ser Ser Arg Leu Trp Asp Leu Leu Glu Asp Pro Trp			
405	410		415

<210> 4856

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4856

Met Ser Cys Tyr Pro Thr Phe Asp Trp Ala Thr Trp Ala Glu Gly Glu			
1	5	10	15
Lys Gly Val Trp Lys Ser Pro Pro Ser Ile Gln Thr Gly Asp Gln Ile			
20	25		30
Gly Val Arg Glu Glu Leu Leu Asn Ala Leu His Ser Ser Leu Ala Arg			
35	40		45
Pro Ala Ile Lys Lys His Gln His Pro Lys Gly Lys Lys Lys Arg Arg			
50	55		60
Ser Arg Glu Lys His Gln Glu Ser Thr Thr Asp Pro Gly Ser Pro Lys			
65	70	75	80
Lys Cys Arg Ala Arg Phe Gly Leu Asn Gln Gln Thr Asp Trp Cys Gly			
85	90		95
Pro Cys Arg Arg Lys Lys Cys Ile Arg Tyr Leu Pro Gly Glu Gly			
100	105		110
Arg Cys Pro Ser Pro Val Pro Ser Asp Asp Ser Ala Leu Gly Cys Pro			
115	120		125
Gly Ser Pro Ala Pro Gln Asp Ser Pro Ser Tyr His Leu Leu Pro Arg			
130	135		140
Phe Pro Thr Glu Leu Leu Thr Ser Pro Ala Glu Pro Ala Pro Thr Ser			
145	150	155	160
Pro Gly Leu Ser Thr Ala Leu Ser Leu Pro Thr Pro Gly Pro Pro Gln			
165	170		175
Ala Pro Arg Ser Thr Leu Gln Ser Thr Gln Val Gln Gln Gln Glu Ser			
180	185		190
Gln Arg Gln Val Ala			

195

210 4857

209

<212> PRT

<213> Homo sapiens

〈400〉 4857

&lt;210&gt; 4858

&lt;211&gt; 259

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4858

Met	Glu	Cys	His	Leu	Lys	Thr	His	Tyr	Lys	Met	Glu	Tyr	Lys	Cys	Arg
1							10								15
Ile	Cys	Gln	Thr	Val	Lys	Ala	Asn	Gln	Leu	Glu	Leu	Glu	Thr	Arg	Thr
															20
															25
															30
Arg	Glu	His	Arg	Leu	Gly	Asn	His	Tyr	Lys	Cys	Asp	Gln	Cys	Gly	Tyr
															35
															40
															45
Leu	Ser	Lys	Thr	Ala	Asn	Lys	Leu	Ile	Glu	His	Val	Arg	Val	His	Thr
															50
															55
															60
Gly	Glu	Arg	Pro	Phe	His	Cys	Asp	Gln	Cys	Ser	Tyr	Ser	Cys	Lys	Arg
															65
															70
															75
Lys	Asp	Asn	Leu	Asn	Leu	His	Lys	Lys	Leu	Lys	His	Ala	Pro	Arg	Gln
															85
															90
															95
Thr	Phe	Ser	Cys	Glu	Glu	Cys	Leu	Phe	Lys	Thr	Thr	His	Pro	Phe	Val
															100
															105
															110
Phe	Ser	Arg	His	Val	Lys	Lys	His	Gln	Ser	Gly	Asp	Cys	Pro	Glu	Glu
															115
															120
															125
Asp	Lys	Lys	Gly	Leu	Cys	Pro	Ala	Pro	Lys	Glu	Pro	Ala	Gly	Pro	Gly
															130
															135
															140
Ala	Pro	Leu	Leu	Val	Val	Gly	Ser	Ser	Arg	Asn	Leu	Leu	Ser	Pro	Leu
															145
															150
															155
Ser	Val	Met	Ser	Ala	Ser	Gln	Ala	Leu	Gln	Thr	Val	Ala	Leu	Ser	Ala
															165
															170
															175
Ala	His	Gly	Ser	Ser	Ser	Glu	Pro	Asn	Leu	Ala	Leu	Lys	Ala	Leu	Ala
															180
															185
															190
Phe	Asn	Gly	Ser	Pro	Leu	Arg	Phe	Asp	Lys	Tyr	Arg	Asn	Ser	Asp	Phe
															195
															200
															205
Ala	His	Leu	Ile	Pro	Leu	Thr	Met	Leu	Tyr	Pro	Lys	Asn	His	Leu	Asp

210	215	220	
Leu Thr Phe His Pro Pro Arg Pro Gln Thr Ala Pro Pro Ser Ile Pro			
225	230	235	240
Ser Pro Lys His Pro Phe Leu Ala Tyr Leu Gly Leu Arg Glu Arg Ala			
245	250	255	
Glu Thr Val			

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<210> 4859

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4859

Met Ile Ser Ala Tyr Cys Asn Leu His Leu Leu Gly Ser Ser Asn Ser			
1	5	10	15
Ser Ala Ser Ala Ser Gln Val Ala Gly Ile Thr Gly Ala Cys Gln His			
20	25	30	
Ala Trp Leu Ile Trp Gly Tyr Ser Ser Phe Leu Arg Gln Ser Phe Ala			
35	40	45	
Leu Ser Pro Lys Leu Glu Cys Ser Gly Thr Ile Ser Ala Leu Cys Ser			
50	55	60	
Leu Cys Leu Leu Gly Ser Ser Asp Ser Pro Ser Ser Ala Ser Gln Val			
65	70	75	80
Ala Gly Ile Thr Gly Ala Cys Tyr His Ala Gln Leu Ile Phe Val Phe			
85	90	95	
Leu Val Gln Met Arg Phe His His Leu Gly Gln Ala Gly Leu Glu Leu			
100	105	110	
Leu Thr Ser Ser Asp Leu Pro Ala Ser Ala Ser Gln Ser Ala Gly Ile			
115	120	125	
Thr Asp Val Asn His His Ala Gln Pro Leu Trp Gly Tyr Ser Cys Pro			
130	135	140	
Tyr Phe Ser Phe Ile Val Leu Tyr Lys Lys Val Val Leu Leu Tyr Leu			
145	150	155	160

&lt;210&gt; 4860

&lt;211&gt; 276

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4860

Met Asn Val Gln Ser Ser Arg Ser His Ala Ile Phe Thr Ile His Leu  
 1 5 10 15  
 Cys Gln Met Arg Met Cys Thr Gln Pro Asp Leu Val Asn Glu Ala Val  
 20 25 30  
 Thr Gly Leu Pro Asp Gly Thr Pro Pro Ser Ser Glu Tyr Glu Thr Leu  
 35 40 45  
 Thr Ala Lys Phe His Phe Val Asp Leu Ala Gly Ser Glu Arg Leu Lys  
 50 55 60  
 Arg Thr Gly Ala Thr Gly Glu Arg Ala Lys Glu Gly Ile Ser Ile Asn  
 65 70 75 80  
 Cys Gly Leu Val Gly Thr Trp Trp Val Ile Ser Pro Ser Thr His Thr  
 85 90 95  
 Ala Gln Ser Gln Thr Pro Pro Arg Pro Cys Ser Pro Thr Pro Ala Glu  
 100 105 110  
 Ser Ser Leu Asp Ile Leu Pro Ile Ser Pro Ser Leu Ser Gly Val Thr  
 115 120 125  
 Pro Val Pro Ser Phe Pro Ile Ser Pro Thr Tyr Pro Cys Ala Tyr Lys  
 130 135 140  
 Pro Thr Gln Gly Ala Arg Gly Leu Leu Gly Pro Lys Arg Gln Leu Ala  
 145 150 155 160  
 Leu Gly Asn Val Ile Ser Ala Leu Gly Asp Gln Ser Lys Lys Val Val  
 165 170 175  
 His Val Ser Tyr Arg Asp Ser Lys Leu Thr Arg Leu Leu Gln Asp Ser  
 180 185 190  
 Leu Gly Gly Asn Ser Gln Thr Ile Met Ile Ala Cys Val Ser Pro Ser  
 195 200 205  
 Asp Arg Asp Phe Met Glu Thr Leu Asn Thr Leu Lys Tyr Ala Asn Arg  
 210 215 220  
 Ala Arg Asn Ile Lys Asn Lys Val Val Val Asn Gln Asp Lys Thr Ser

225	230	235	240
Gln Gln Ile Ser Ala Leu Arg Ala Glu Ile Ala Arg Leu Gln Met Glu			
245	250	255	
Leu Met Glu Tyr Lys Ala Val Ser Met Leu Leu Gly Ile Ala Gln His			
260	265	270	
Ser Pro Trp Ser			
275			

<210> 4861

<211> 159

<212> PRT

<213> Homo sapiens

<400> 4861

Met Gln Gly Ala Glu Leu His Pro Arg Cys His Ala Trp Val Ser Val			
1	5	10	15
Phe Ala Leu Gly Leu Thr Leu Lys Arg Thr Gly Gln Pro Gln Ala Pro			
20	25	30	
Ser Thr Gly Asp Leu Pro Ser Gly Pro Ala Gly Lys Ala Gly Ser Arg			
35	40	45	
Glu Leu Arg Gly Glu Pro Pro Thr Trp Val Trp His Pro Pro Ile Ser			
50	55	60	
Asp Asn Phe His Gln Glu Asp Ser Lys Arg Pro His Val Cys Phe Asp			
65	70	75	80
Gly Glu Asp Pro Glu Val Asp Gly Phe Arg Gly Cys Pro Leu Asp Gly			
85	90	95	
Glu Leu Gly Pro Cys Gly Lys Ser His Ala Ser Phe Gly Arg Pro Arg			
100	105	110	
Pro Val Ala Pro Thr Leu His Pro His Pro Tyr Pro Cys Ser Cys Cys			
115	120	125	
Pro Ser Ile Lys Pro Pro Leu Arg Gly Leu Thr Gly Arg Gly Gly Gln			
130	135	140	
Ala Trp Arg Gly Ser His Tyr Arg Thr Pro Gly His Met Thr Arg			
145	150	155	

&lt;210&gt; 4862

&lt;211&gt; 781

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4862

Met Lys Ser Ser Gly Pro Val Glu Arg Leu Leu Arg Ala Leu Gly Arg  
 1 5 10 15  
 Arg Asp Ser Ser Arg Ala Ala Ser Arg Pro Arg Lys Ala Glu Pro His  
 20 25 30  
 Ser Phe Arg Glu Lys Val Phe Arg Lys Lys Pro Pro Val Cys Ala Val  
 35 40 45  
 Cys Lys Val Thr Ile Asp Gly Thr Gly Val Ser Cys Arg Val Cys Lys  
 50 55 60  
 Val Ala Thr His Arg Lys Cys Glu Ala Lys Val Thr Ser Ala Cys Gln  
 65 70 75 80  
 Ala Leu Pro Pro Val Glu Leu Arg Arg Asn Thr Ala Pro Val Arg Arg  
 85 90 95  
 Ile Glu His Leu Gly Ser Thr Lys Ser Leu Asn His Ser Lys Gln Arg  
 100 105 110  
 Ser Thr Leu Pro Arg Ser Phe Ser Leu Asp Pro Leu Met Glu Arg Arg  
 115 120 125  
 Trp Asp Leu Asp Leu Thr Tyr Val Thr Glu Arg Ile Leu Ala Ala Ala  
 130 135 140  
 Phe Pro Ala Arg Pro Asp Glu Gln Arg His Arg Gly His Leu Arg Glu  
 145 150 155 160  
 Leu Ala His Val Leu Gln Ser Lys His Arg Asp Lys Tyr Leu Leu Phe  
 165 170 175  
 Asn Leu Ser Glu Lys Arg His Asp Leu Thr Arg Leu Asn Pro Lys Val  
 180 185 190  
 Gln Asp Phe Gly Trp Pro Glu Leu His Ala Pro Pro Leu Asp Lys Leu  
 195 200 205  
 Cys Ser Ile Cys Lys Ala Met Glu Thr Trp Leu Ser Ala Asp Pro Gln  
 210 215 220  
 His Val Val Val Leu Tyr Cys Lys Gly Asn Lys Gly Lys Leu Gly Val

225	230	235	240
Ile Val Ser Ala Tyr Met His Tyr Ser Lys Ile Ser Ala Gly Ala Asp			
245	250	255	
Gln Ala Leu Ala Thr Leu Thr Met Arg Lys Phe Cys Glu Asp Lys Val			
260	265	270	
Ala Thr Glu Leu Gln Pro Ser Gln Arg Arg Tyr Ile Ser Tyr Phe Ser			
275	280	285	
Gly Leu Leu Ser Gly Ser Ile Arg Met Asn Ser Ser Pro Leu Phe Leu			
290	295	300	
His Tyr Val Leu Ile Pro Met Leu Pro Ala Phe Glu Pro Gly Thr Gly			
305	310	315	320
Phe Gln Pro Phe Leu Lys Ile Tyr Gln Ser Met Gln Leu Val Tyr Thr			
325	330	335	
Ser Gly Val Tyr His Ile Ala Gly Pro Gly Pro Gln Gln Leu Cys Ile			
340	345	350	
Ser Leu Glu Pro Ala Leu Leu Leu Lys Gly Asp Val Met Val Thr Cys			
355	360	365	
Tyr His Lys Gly Gly Arg Gly Thr Asp Arg Thr Leu Val Phe Arg Val			
370	375	380	
Gln Phe His Thr Cys Thr Ile His Gly Pro Gln Leu Thr Phe Pro Lys			
385	390	395	400
Asp Gln Leu Asp Glu Ala Trp Thr Asp Glu Arg Phe Pro Phe Gln Ala			
405	410	415	
Ser Val Glu Phe Val Phe Ser Ser Ser Pro Glu Lys Ile Lys Gly Ser			
420	425	430	
Thr Pro Arg Asn Asp Pro Ser Val Ser Val Asp Tyr Asn Thr Thr Glu			
435	440	445	
Pro Ala Val Arg Trp Asp Ser Tyr Glu Asn Phe Asn Gln His His Glu			
450	455	460	
Asp Ser Val Asp Gly Ser Leu Thr His Thr Arg Gly Pro Leu Asp Gly			
465	470	475	480
Ser Pro Tyr Ala Gln Val Gln Arg Pro Pro Arg Gln Thr Pro Pro Ala			
485	490	495	
Pro Ser Pro Glu Pro Pro Pro Pro Pro Met Leu Ser Val Ser Ser Asp			
500	505	510	

Ser Gly His Ser Ser Thr Leu Thr Thr Glu Pro Ala Ala Glu Ser Pro  
 515 520 525  
 Gly Arg Pro Pro Pro Thr Ala Ala Glu Arg Gln Glu Leu Asp Arg Leu  
 530 535 540  
 Leu Gly Gly Cys Gly Val Ala Ser Gly Gly Arg Gly Ala Gly Arg Glu  
 545 550 555 560  
 Thr Ala Ile Leu Asp Asp Glu Glu Gln Pro Thr Val Gly Gly Pro  
 565 570 575  
 His Leu Gly Val Tyr Pro Gly His Arg Pro Gly Leu Ser Arg His Cys  
 580 585 590  
 Ser Cys Arg Gln Gly Tyr Arg Glu Pro Cys Gly Val Pro Asn Gly Gly  
 595 600 605  
 Tyr Tyr Arg Pro Glu Gly Thr Leu Glu Arg Arg Arg Leu Ala Tyr Gly  
 610 615 620  
 Gly Tyr Glu Gly Ser Pro Gln Gly Tyr Ala Glu Ala Ser Met Glu Lys  
 625 630 635 640  
 Arg Arg Leu Cys Arg Ser Leu Ser Glu Gly Leu Tyr Pro Tyr Pro Pro  
 645 650 655  
 Glu Met Gly Lys Pro Ala Thr Gly Asp Phe Gly Tyr Arg Ala Ser Ser  
 660 665 670  
 Ala Ala Leu Ser Cys Ser Pro Arg Pro Thr Pro Ala Val Val His Phe  
 675 680 685  
 Lys Val Ser Ala Gln Gly Ile Thr Leu Thr Asp Asn Gln Arg Lys Leu  
 690 695 700  
 Phe Phe Arg Arg His Tyr Pro Val Asn Ser Ile Thr Phe Ser Ser Thr  
 705 710 715 720  
 Asp Pro Gln Asp Arg Arg Trp Thr Asn Pro Asp Gly Thr Thr Ser Lys  
 725 730 735  
 Ile Phe Gly Phe Val Ala Lys Pro Gly Ser Pro Trp Glu Asn Val  
 740 745 750  
 Cys His Leu Phe Ala Glu Leu Asp Pro Asp Gln Pro Ala Gly Ala Ile  
 755 760 765  
 Val Thr Phe Ile Thr Lys Val Leu Leu Gly Gln Arg Lys  
 770 775 780



Asn Gly Val Met Val Leu Ala Gly Val Thr Asp Pro Glu Tyr Gln Asp  
 50 55 60  
 Glu Ile Ser Leu Leu Leu His Asn Glu Gly His Leu Lys Glu Val Lys  
 65 70 75 80  
 Met Glu Gly Ala Arg Leu Gly Leu Pro Gly Arg Ala Glu Ser Leu Glu  
 85 90 95  
 His Gln Val Gln Ser His Leu Asn Met Ile Ala Gln Ser Gln Arg Thr  
 100 105 110  
 Phe Gln Lys Lys Asp Ala Gly Lys Ala Ile Ile Leu Ser Lys Leu Thr  
 115 120 125  
 Gln Glu Gln Lys Thr Lys His Cys Met Phe Ser Leu His  
 130 135 140

<210> 4865

<211> 731

<212> PRT

<213> Homo sapiens

<400> 4865

Met His Leu Arg Leu Arg Pro Glu Val Gly Arg Ser Arg Ala Arg Ser  
 1 5 10 15  
 Gly Glu Pro Ala Gly Ser Ala Ala Ala Arg Glu Val Met Ala Ala Ala  
 20 25 30  
 Pro Ala Arg Gly Gly Gly Gly Gly Gly Gly Gly Cys Ser  
 35 40 45  
 Gly Ser Gly Ser Ser Ala Ser Arg Gly Phe Tyr Phe Asn Thr Val Leu  
 50 55 60  
 Ser Leu Ala Arg Ser Leu Ala Val Gln Arg Pro Ala Ser Leu Glu Lys  
 65 70 75 80  
 Val Arg Lys Leu Leu Cys Met Cys Pro Val Asp Phe His Gly Ile Phe  
 85 90 95  
 Gln Leu Asp Glu Arg Arg Asp Ala Val Ile Ala Leu Gly Ile Phe  
 100 105 110  
 Leu Ile Glu Ser Asp Leu Gln His Lys Asp Cys Val Val Pro Tyr Leu  
 115 120 125

Leu Arg Leu Leu Lys Gly Leu Pro Lys Val Tyr Trp Val Glu Glu Ser  
 130 135 140  
 Thr Ala Arg Lys Gly Arg Gly Ala Leu Pro Val Ala Glu Ser Phe Ser  
 145 150 155 160  
 Phe Cys Leu Val Thr Leu Leu Ser Asp Val Ala Tyr Arg Asp Pro Ser  
 165 170 175  
 Leu Arg Asp Glu Ile Leu Glu Val Leu Leu Gln Val Leu His Val Leu  
 180 185 190  
 Leu Gly Met Cys Gln Ala Leu Glu Ile Gln Asp Lys Glu Tyr Leu Cys  
 195 200 205  
 Lys Tyr Ala Ile Pro Cys Leu Ile Gly Ile Ser Arg Ala Phe Gly Arg  
 210 215 220  
 Tyr Ser Asn Met Glu Glu Ser Leu Leu Ser Lys Leu Phe Pro Lys Ile  
 225 230 235 240  
 Pro Pro His Ser Leu Arg Val Leu Glu Glu Leu Glu Gly Val Arg Arg  
 245 250 255  
 Arg Ser Phe Asn Asp Phe Arg Ser Ile Leu Pro Ser Asn Leu Leu Thr  
 260 265 270  
 Val Cys Gln Glu Gly Thr Leu Lys Arg Lys Thr Ser Ser Val Ser Ser  
 275 280 285  
 Ile Ser Gln Val Ser Pro Glu Arg Gly Met Pro Pro Ser Ser Pro  
 290 295 300  
 Gly Gly Ser Ala Phe His Tyr Phe Glu Ala Ser Cys Leu Pro Asp Gly  
 305 310 315 320  
 Thr Ala Leu Glu Pro Glu Tyr Tyr Phe Ser Thr Ile Ser Ser Ser Phe  
 325 330 335  
 Ser Val Ser Pro Leu Phe Asn Gly Val Thr Tyr Lys Glu Phe Asn Ile  
 340 345 350  
 Pro Leu Glu Met Leu Arg Glu Leu Leu Asn Leu Val Lys Lys Ile Val  
 355 360 365  
 Glu Glu Ala Val Leu Lys Ser Leu Asp Ala Ile Val Ala Ser Val Met  
 370 375 380  
 Glu Ala Asn Pro Ser Ala Asp Leu Tyr Tyr Ser Phe Ser Asp Pro  
 385 390 395 400  
 Leu Tyr Leu Thr Met Phe Lys Met Leu Arg Asp Thr Leu Tyr Tyr Met  
 405 410 415

Lys Asp Leu Pro Thr Ser Phe Val Lys Glu Ile His Asp Phe Val Leu  
                  420                 425                 430  
 Glu Gln Phe Asn Thr Ser Gln Gly Glu Leu Gln Lys Ile Leu His Asp  
                  435                 440                 445  
 Ala Asp Arg Ile His Asn Glu Leu Ser Pro Leu Lys Leu Arg Cys Gln  
                  450                 455                 460  
 Ala Asn Ala Ala Cys Val Asp Leu Met Val Trp Ala Val Lys Asp Glu  
                  465                 470                 475                 480  
 Gln Gly Ala Glu Asn Leu Cys Ile Lys Leu Ser Glu Lys Leu Gln Ser  
                  485                 490                 495  
 Lys Thr Ser Ser Lys Val Ile Ile Ala His Leu Pro Leu Leu Ile Cys  
                  500                 505                 510  
 Cys Leu Gln Gly Leu Gly Arg Leu Cys Glu Arg Phe Pro Val Val Val  
                  515                 520                 525  
 His Ser Val Thr Pro Ser Leu Arg Asp Phe Leu Val Ile Pro Ser Pro  
                  530                 535                 540  
 Val Leu Val Lys Leu Tyr Lys Tyr His Ser Gln Tyr His Thr Val Ala  
                  545                 550                 555                 560  
 Gly Asn Asp Ile Lys Ile Ser Val Thr Asn Glu His Ser Glu Ser Thr  
                  565                 570                 575  
 Leu Asn Val Met Ser Gly Lys Lys Ser Gln Pro Ser Met Tyr Glu Gln  
                  580                 585                 590  
 Leu Arg Asp Ile Ala Ile Asp Asn Ile Cys Arg Cys Leu Lys Ala Gly  
                  595                 600                 605  
 Leu Thr Val Asp Pro Val Ile Val Glu Ala Phe Leu Ala Ser Leu Ser  
                  610                 615                 620  
 Asn Arg Leu Tyr Ile Ser Gln Glu Ser Asp Lys Asp Ala His Leu Ile  
                  625                 630                 635                 640  
 Pro Asp His Thr Ile Arg Ala Leu Gly His Ile Ala Val Ala Leu Arg  
                  645                 650                 655  
 Asp Thr Pro Lys Val Met Glu Pro Ile Leu Gln Ile Leu Gln Gln Lys  
                  660                 665                 670  
 Phe Cys Gln Pro Pro Ser Pro Leu Asp Val Leu Ile Ile Asp Gln Leu  
                  675                 680                 685  
 Gly Cys Leu Val Ile Thr Gly Asn Gln Tyr Ile Tyr Gln Glu Val Trp  
                  690                 695                 700

Asn Leu Phe Gln Gln Ile Ser Val Lys Ala Ser Ser Val Val Tyr Ser  
 705 710 715 720  
 Ala Thr Lys Asp Tyr Lys Asp His Gly Tyr Arg  
 725 730

<210> 4866

<211> 288

<212> PRT

<213> Homo sapiens

<400> 4866

Met Ser Arg Glu Leu Ala Pro Leu Leu Leu Leu Leu Ser Ile His  
 1 5 10 15  
 Ser Ala Leu Ala Met Arg Ile Cys Ser Phe Asn Val Arg Ser Phe Gly  
 20 25 30  
 Glu Ser Lys Gln Glu Asp Lys Asn Ala Met Asp Val Ile Val Lys Val  
 35 40 45  
 Ile Lys Arg Cys Asp Ile Ile Leu Val Met Glu Ile Lys Asp Ser Asn  
 50 55 60  
 Asn Arg Ile Cys Pro Ile Leu Met Glu Lys Leu Asn Arg Asn Ser Arg  
 65 70 75 80  
 Arg Gly Ile Thr Tyr Asn Tyr Val Ile Ser Ser Arg Leu Gly Arg Asn  
 85 90 95  
 Thr Tyr Lys Glu Gln Tyr Ala Phe Leu Tyr Lys Glu Lys Leu Val Ser  
 100 105 110  
 Val Lys Arg Ser Tyr His Tyr His Asp Tyr Gln Asp Gly Asp Ala Asp  
 115 120 125  
 Val Phe Ser Arg Glu Pro Phe Val Val Trp Phe Gln Ser Pro His Thr  
 130 135 140  
 Ala Val Lys Asp Phe Val Ile Ile Pro Leu His Thr Thr Pro Glu Thr  
 145 150 155 160  
 Ser Val Lys Glu Ile Asp Glu Leu Val Glu Val Tyr Thr Asp Val Lys  
 165 170 175  
 His Arg Trp Lys Ala Glu Asn Phe Ile Phe Met Gly Asp Phe Asn Ala  
 180 185 190

Gly Cys Ser Tyr Val Pro Lys Lys Ala Trp Lys Asn Val Arg Leu Arg  
                  195                 200                 205  
 Thr Asp Pro Arg Phe Val Trp Leu Ile Gly Asp Gln Glu Asp Thr Thr  
                  210                 215                 220  
 Val Lys Lys Ser Thr Asn Cys Ala Tyr Asp Arg Ile Val Leu Arg Gly  
                  225                 230                 235                 240  
 Gln Glu Ile Val Ser Ser Val Val Pro Lys Ser Asn Ser Val Phe Asp  
                  245                 250                 255  
 Phe Gln Lys Ala Tyr Lys Leu Thr Glu Glu Glu Val Arg Leu Pro Ser  
                  260                 265                 270  
 Cys Leu Ser Met Pro Leu Ser Trp Lys Asp Glu Leu Ala Trp Ala Thr  
                  275                 280                 285

<210> 4867

<211> 143

<212> PRT

<213> Homo sapiens

<400> 4867

Met Pro Ser Thr Pro Ser Ser Arg Arg Ser Arg Asn Ser Ser Arg Ser  
          1                 5                 10                 15  
 Pro Pro Gln Thr Ala Asp Cys Trp Ala Ser Ser Lys Ala Arg Thr Pro  
          20                 25                 30  
 Ser Ser Thr Glu Leu Gln Pro Cys Leu Glu Gly Arg Pro Pro Ser Cys  
          35                 40                 45  
 His Pro Asp Leu Ser Gly Ser Pro Phe Pro Pro Ser Leu Asp Pro Lys  
          50                 55                 60  
 Ser Gly Ala Ile His Gln Glu Cys Arg Pro Leu Val Gly Gly Ala Gly  
          65                 70                 75                 80  
 Cys Cys Leu Pro Ile Gly Gln Leu Leu Pro Glu Met Gln Met Arg Leu  
          85                 90                 95  
 Leu Glu Thr Gly Trp Glu Leu Ala Glu Pro Arg Trp Arg Arg Gly Ser  
          100                 105                 110  
 Ala Pro Gly His Phe Thr Gly Arg Glu Glu Gly Lys Lys Ser Leu  
          115                 120                 125

Arg Leu Trp Asp Thr Asp Ser Gln Asn Lys His Ile Cys Gly Cys  
 130 135 140

<210> 4868

<211> 281

<212> PRT

<213> Homo sapiens

<400> 4868

Met Ala Val Asp Ser Leu Leu Arg Ile Leu Lys Thr Leu Arg Leu Asp  
 1 5 10 15  
 Phe Ile Gln Glu Leu Glu Val Phe Tyr Trp Cys Arg Asp Phe Leu Val  
 20 25 30  
 Leu Ala Glu Pro Asn Leu Ser Ala Ile Gln Leu Gly Arg Ile Phe Asn  
 35 40 45  
 Leu Arg Ser Leu Lys Leu Phe Tyr Tyr Lys Trp Ala Phe Ser Ser Trp  
 50 55 60  
 Val Arg Arg Pro Ser Ser Tyr Phe Phe Ser Gln Leu Thr Met Leu Gly  
 65 70 75 80  
 His Leu Arg Lys Leu His Leu Ser His Ser Tyr Leu Val Gly Lys Leu  
 85 90 95  
 His Tyr Ile Leu Ser Cys Leu Trp Val Pro Leu His Ser Leu Glu Ile  
 100 105 110  
 Cys Asn Cys Lys Leu Leu Asp Thr Asp Ile Thr Tyr Leu Ser Arg Ser  
 115 120 125  
 His His Thr Thr Cys Leu Lys Leu Asp Leu Ser Val Asn Asp Leu  
 130 135 140  
 Ser Tyr Met Ile Pro Gly Pro Leu Gly Thr Leu Leu Arg Ala Val Ser  
 145 150 155 160  
 Gly Thr Leu Gln His Leu Asp Leu Lys His Cys Trp Leu Lys Asp Ala  
 165 170 175  
 His Leu Ser Ala Leu Leu Pro Ala Leu Cys Arg Cys Ser His Leu Ser  
 180 185 190  
 Ser Leu Ser Leu Ser Asp Asn Pro Ile Ser Ser Ala Cys Leu Leu Ser  
 195 200 205

Leu Leu Glu His Thr Met Gly Leu Met Glu Leu Lys Gln Val Leu Tyr  
 210 215 220  
 Pro Ile Pro Val Asp Cys Cys Ile Tyr Leu His Gly Val Cys Arg Gly  
 225 230 235 240  
 Pro Val Asn Glu Asp Lys Leu Cys Gln Leu Gln Ala Glu Ile Gln Lys  
 245 250 255  
 Gln Leu Gln Ala Met Gln Gln Ala Asp Met Gln Trp Ser Pro Ser Thr  
 260 265 270  
 Val Phe Ala Tyr Ala Ala Gly Ala Val  
 275 280

<210> 4869

<211> 197

<212> PRT

<213> Homo sapiens

<400> 4869

Met Val Gln Ala Pro Cys Leu Val Val Leu Ser Phe His Val Val Leu

1	5	10	15
Ser Leu Gln Val His Arg Ser Gln Glu Leu Gly Phe Trp Asn Leu His			
20	25	30	
Leu Asp Phe Arg Arg Cys Met Glu Met Pro Gly Cys Pro Gly Arg Asn			
35	40	45	
Leu Leu Gln Gly Trp Gly Ser His Gly Glu Pro Leu Leu Gly Gln Cys			
50	55	60	
Arg Arg Glu Met Trp Gly Gly Ser Pro Thr Gln Ser Pro Tyr Trp Gly			
65	70	75	80
Thr Val Leu Gln Thr Gln Asn Gly Arg Ser Thr Asp Ser Leu His Cys			
85	90	95	
Val Pro Gly Lys Ala Thr Asp Thr Gln Cys Gln Pro Met Lys Ala Thr			
100	105	110	
Arg Arg Glu Thr Val Pro Cys Lys Ala Thr Gly Ala Glu Leu Leu Lys			
115	120	125	
Thr Met Gly Thr Tyr Leu Leu Tyr Gln His Asp Leu Asp Val Arg His			

130	135	140
Gly Val Lys Gly Glu His Phe Gly Ala Leu Arg Phe Asp Cys Pro Ala		
145	150	155
Gly Phe Trp Thr Cys Met Gly Pro Val Ala Pro Leu Phe Trp Pro Val		
165	170	175
Ser Pro Ile Trp Asn Gly Tyr Ile Tyr Pro Met Pro Ile Pro Pro Leu		
180	185	190
Tyr Pro Gly Ser Asn		
195		

<210> 4870

<211> 218

<212> PRT

<213> Homo sapiens

<400> 4870

Met Trp Leu His Arg Gly Pro Leu Arg Pro Pro Gly Val Arg Trp Thr			
1	5	10	15
Pro Trp Ala Phe Leu Glu Ala Cys Ser Trp Gly Pro Ala Leu Ser Leu			
20	25	30	
Leu Gly Ser Gly His Ser Leu Pro Gly Thr His Glu Gln Ala Ala Trp			
35	40	45	
Ser Arg Gly Cys Gly Gln His Gly Gln Ser Pro Thr Gln Lys Cys Lys			
50	55	60	
Ser Ser Lys Glu Pro Leu Ala Gln Ala Pro Pro His Gln Gly Phe Ala			
65	70	75	80
Asp Val Leu Glu Arg Pro Thr Leu Glu Pro Phe Gly Val Leu Ala Pro			
85	90	95	
Pro Val Pro Ser Ala Leu Val Glu Ala Ala Ala Thr Ser Pro Pro Gln			
100	105	110	
Gly Ala Pro Arg Gly Ile Leu Trp Asp Arg Cys Pro Gln Ile Gln Val			
115	120	125	
Leu Glu Gly Gln Arg Val Arg Phe Pro Ser Gln Pro Gln His Pro Ser			
130	135	140	
His Leu Ala Pro Arg Gly Gly Cys Gly Trp Arg Pro Asp Ser Arg Pro			

145	150	155	160
Leu	Leu	Pro	Thr
Pro	Ser	Gly	Leu
Ser	Ser	Phe	Phe
Phe	Pro	Leu	Asp
			Ala
165		170	175
Gln	Cys	Trp	Pro
Trp	Arg	Thr	Val
Arg	Ser	Trp	Arg
Met	Ala	Val	Gly
			Glu
180		185	190
Ala	Val	Phe	Val
Phe	Val	Pro	Leu
Leu	Gln	His	Pro
His	Pro	Leu	Leu
			Gly
			Ser
195		200	205
Ile	Pro	Lys	Leu
Leu	Pro	Gly	Pro
			Leu
210		215	

<210> 4871

<211> 349

<212> PRT

<213> Homo sapiens

<400> 4871

Met	Ala	Met	Ala	Phe	Thr	Asp	Leu	Leu	Asp	Ala	Leu	Gly	Ser	Met	Gly
1				5			10							15	
Arg	Phe	Gln	Leu	Asn	His	Thr	Ala	Leu	Leu	Leu	Leu	Pro	Cys	Gly	Leu
							20							30	
Leu	Ala	Cys	His	Asn	Phe	Leu	Gln	Asn	Phe	Thr	Ala	Ala	Val	Pro	
							35							45	
His	His	Cys	Arg	Gly	Pro	Ala	Asn	His	Thr	Glu	Ala	Ser	Thr	Asn	Asp
							50							60	
Ser	Gly	Ala	Trp	Leu	Arg	Ala	Thr	Ile	Pro	Leu	Asp	Gln	Leu	Gly	Ala
							65							80	
Pro	Glu	Pro	Cys	Arg	Arg	Phe	Thr	Lys	Pro	Gln	Trp	Ala	Leu	Leu	Ser
							85							95	
Pro	Asn	Ser	Ser	Ile	Pro	Gly	Ala	Ala	Thr	Glu	Gly	Cys	Lys	Asp	Gly
							100							110	
Trp	Val	Tyr	Asn	Arg	Ser	Val	Phe	Pro	Ser	Thr	Ile	Val	Met	Glu	Trp
							115							125	
Asp	Leu	Val	Cys	Glu	Ala	Arg	Thr	Leu	Arg	Asp	Leu	Ala	Gln	Ser	Val
							130							140	
Tyr	Met	Ala	Gly	Val	Leu	Val	Gly	Ala	Ala	Val	Phe	Gly	Ser	Leu	Ala

145	150	155	160
Asp Arg Leu Gly Cys Lys Gly Pro Leu Val Trp Ser Tyr Leu Gln Leu			
165	170	175	
Ala Ala Ser Gly Ala Ala Thr Ala Tyr Phe Ser Ser Phe Ser Ala Tyr			
180	185	190	
Cys Val Phe Arg Phe Leu Met Gly Met Thr Phe Ser Gly Ile Ile Leu			
195	200	205	
Asn Ser Val Ser Leu Val Ala Ser Arg Val Ile Pro Leu Ala Pro Pro			
210	215	220	
Ala Trp Gln Val Pro Val Ser Cys Thr Glu Ser Ala Glu Gly Gly Cys			
225	230	235	240
Asn Glu Arg Glu Glu Gly Gly Arg Gly Lys Ala Asp Gln Gly Gly Asp			
245	250	255	
Glu Leu Leu His Pro Lys Arg Val Cys Lys Cys Leu His Leu Gln Leu			
260	265	270	
Asn Leu Gly Pro Leu Pro Asn Pro Gly His Pro Gln Gly His Met Leu			
275	280	285	
Ser His Gly Asp Leu Arg Gly Arg Gln Arg Ser Ser Gly Ser Gly Glu			
290	295	300	
Gln Gly Gly Ser Cys Glu Pro Glu Ser Arg Asn Gly Arg Leu Pro Ala			
305	310	315	320
Val Ala Pro Ala Gly Leu Gly Leu Pro Phe Val His Leu Pro Leu Ser			
325	330	335	
Ala Arg Glu Lys Gln Ile Leu Ser Ser Lys Phe Gln Ser			
340	345		

<210> 4872

<211> 421

<212> PRT

<213> Homo sapiens

<400> 4872

Met Arg Tyr Ser Leu Ser Pro Asp Asn His Leu Glu Asp Gly Ile Met			
1	5	10	15
Asn Met Ala Asn Phe Leu Arg Gly Phe Glu Glu Lys Gly Ile Lys Asn			

20	25	30
Asp Arg Pro Glu Asp Gln Leu Ser Lys Glu Lys Lys Lys Ile Leu Phe		
35	40	45
Ser Phe Cys Glu Val Cys Asn Ile Gln Leu Asn Ser Ala Ala Gln Ala		
50	55	60
Gln Val His Ser Asn Gly Lys Ser His Arg Lys Arg Val Lys Gln Leu		
65	70	75
Ser Asp Gly Gln Pro Pro Pro Ala Gln Ala Ser Pro Ser Ser Asn		
85	90	95
Ser Ser Thr Gly Ser Thr Cys His Thr Thr Thr Leu Pro Ala Leu Val		
100	105	110
Arg Thr Pro Thr Leu Met Met Gln Pro Ser Leu Asp Ile Lys Pro Phe		
115	120	125
Met Ser Phe Pro Val Asp Ser Ser Ser Ala Val Gly Leu Phe Pro Asn		
130	135	140
Phe Asn Thr Met Asp Pro Val Gln Lys Ala Val Ile Asn His Thr Phe		
145	150	155
Gly Val Ser Ile Pro Pro Lys Lys Lys Gln Val Ile Ser Cys Asn Val		
165	170	175
Cys Gln Leu Arg Phe Asn Ser Asp Ser Gln Ala Glu Ala His Tyr Lys		
180	185	190
Gly Ser Lys His Ala Lys Lys Val Lys Ala Leu Asp Ala Thr Lys Asn		
195	200	205
Lys Pro Lys Met Val Pro Ser Lys Asp Ser Ala Lys Ala Asn Pro Ser		
210	215	220
Cys Ser Ile Thr Pro Ile Thr Gly Asn Asn Ser Asp Lys Ser Glu Asp		
225	230	235
Lys Gly Lys Leu Lys Ala Ser Ser Ser Ser Gln Pro Ser Ser Glu		
245	250	255
Ser Gly Ser Phe Leu Leu Lys Ser Gly Thr Thr Pro Leu Pro Pro Gly		
260	265	270
Ala Ala Thr Ser Pro Ser Lys Ser Thr Asn Gly Ala Pro Gly Thr Val		
275	280	285
Val Glu Ser Glu Glu Glu Lys Ala Lys Lys Leu Leu Tyr Cys Ser Leu		
290	295	300
Cys Lys Val Ala Val Asn Ser Leu Ser Gln Leu Glu Ala His Asn Thr		

305	310	315	320
Gly Ser Lys His Lys Thr Met Val Glu Ala Arg Asn Gly Ala Gly Pro			
325	330	335	
Ile Lys Ser Tyr Pro Arg Pro Gly Ser Arg Leu Lys Met Gln Asn Gly			
340	345	350	
Ser Lys Gly Ser Gly Leu Gln Asn Lys Thr Phe His Cys Glu Ile Cys			
355	360	365	
Asp Val His Val Asn Ser Glu Ile Gln Leu Lys Gln His Ile Ser Ser			
370	375	380	
Arg Arg His Lys Asp Arg Val Ala Gly Lys Pro Leu Lys Pro Lys Tyr			
385	390	395	400
Thr Pro Cys Lys Val Ile Gly Leu Leu Pro Lys Pro Leu Pro Pro Ala			
405	410	415	
Asn Arg Gln Leu Ser			
420			

<210> 4873

<211> 277

<212> PRT

<213> Homo sapiens

<400> 4873

Met Gly Lys Asn Leu Lys Gly Ile Leu Thr Thr Glu Asn Ile Leu Ser			
1	5	10	15
Ile Asp Asn Ser Val Asn Lys Lys Asp Leu Ser Ile Cys Gly Ser Ser			
20	25	30	
Gly Glu Glu Phe Phe Asn Asn Cys Glu Val Leu Gln Cys Gly Phe Ser			
35	40	45	
Val Pro Arg Glu Asn Ile Arg Thr Arg His Lys Ile Cys Pro Cys Asp			
50	55	60	
Lys Cys Glu Lys Val Phe Pro Ser Ile Ser Lys Leu Lys Arg His Tyr			
65	70	75	80
Leu Ile His Thr Gly Gln Arg Pro Phe Gly Cys Asn Ile Cys Gly Lys			
85	90	95	
Ser Phe Arg Gln Ser Ala His Leu Lys Arg His Glu Gln Thr His Asn			

100	105	110
Glu Lys Ser Pro Tyr Ala Ser Leu Cys Gln Val Glu Phe Gly Asn Phe		
115	120	125
Asn Asn Leu Ser Asn His Ser Gly Asn Asn Val Asn Tyr Asn Ala Ser		
130	135	140
Gln Gln Cys Gln Ala Pro Gly Val Gln Lys Tyr Glu Val Ser Glu Ser		
145	150	155
Asp Gln Met Ser Gly Val Lys Ala Glu Ser Gln Asp Phe Ile Pro Gly		
165	170	175
Ser Thr Gly Gln Pro Cys Leu Pro Asn Val Leu Leu Glu Ser Glu Gln		
180	185	190
Ser Asn Pro Phe Cys Ser Tyr Ser Glu His Gln Glu Lys Asn Asp Val		
195	200	205
Phe Leu Tyr Arg Cys Ser Val Cys Ala Lys Ser Phe Arg Ser Pro Ser		
210	215	220
Lys Leu Glu Arg His Tyr Leu Ile His Ala Gly Gln Lys Pro Phe Glu		
225	230	235
Cys Ser Val Cys Gly Lys Thr Phe Arg Gln Ala Pro His Trp Lys Arg		
245	250	255
His Gln Leu Thr His Phe Lys Glu Arg Pro Gln Gly Lys Val Val Ala		
260	265	270
Leu Asp Ser Val Met		
275		

<210> 4874

<211> 933

<212> PRT

<213> Homo sapiens

<400> 4874

Met Ala Trp Lys Thr Leu Pro Ile Tyr Leu Leu Leu Leu Ser Val			
1	5	10	15
Phe Val Ile Gln Gln Val Ser Ser Gln Glu Leu Ser Cys Lys Gly Arg			
20	25	30	
Cys Phe Glu Ser Phe Glu Arg Gly Arg Glu Cys Asp Cys Asp Ala Gln			

35	40	45
Cys Lys Lys Tyr Asp Lys Cys Cys Pro Asp Tyr Glu Ser Phe Cys Ala		
50	55	60
Glu Val His Asn Pro Thr Ser Pro Pro Ser Ser Lys Lys Ala Pro Pro		
65	70	75
Pro Ser Gly Ala Ser Gln Thr Ile Lys Ser Thr Thr Lys Arg Ser Pro		
85	90	95
Lys Pro Pro Asn Lys Lys Thr Lys Lys Val Ile Glu Ser Glu Glu		
100	105	110
Ile Thr Glu Glu His Ser Val Ser Glu Asn Gln Glu Ser Ser Ser		
115	120	125
Ser Ser Ser Ser Ser Ser Thr Ile Arg Lys Ile Lys Ser Ser		
130	135	140
Lys Asn Ser Ala Ala Asn Arg Glu Leu Gln Lys Lys Leu Lys Val Lys		
145	150	155
Asp Asn Lys Lys Asn Arg Thr Lys Lys Pro Thr Pro Lys Pro Pro		
165	170	175
Val Val Asp Glu Ala Gly Ser Gly Leu Asp Asn Gly Asp Phe Lys Val		
180	185	190
Thr Thr Pro Asp Thr Ser Thr Thr Gln His Asn Lys Val Ser Thr Ser		
195	200	205
Pro Lys Ile Thr Thr Ala Lys Pro Ile Asn Pro Arg Pro Ser Leu Pro		
210	215	220
Pro Asn Ser Asp Thr Ser Lys Glu Thr Ser Leu Thr Val Asn Lys Glu		
225	230	235
Thr Thr Val Glu Thr Lys Glu Thr Thr Thr Asn Lys Gln Thr Ser		
245	250	255
Thr Asp Gly Lys Glu Lys Thr Ser Ala Lys Glu Thr Gln Ser Ile		
260	265	270
Glu Lys Thr Ser Ala Lys Asp Leu Ala Pro Thr Ser Lys Val Leu Ala		
275	280	285
Lys Pro Thr Pro Lys Ala Glu Thr Thr Lys Gly Pro Ala Leu Thr		
290	295	300
Thr Pro Lys Glu Pro Thr Pro Thr Pro Lys Glu Pro Ala Ser Thr		
305	310	315
Thr Pro Lys Glu Pro Thr Pro Thr Ile Lys Ser Ala Pro Thr Thr		

325	330	335	
Pro Lys Glu Pro Ala Pro Thr Thr Thr Lys Ser Ala Pro Thr Thr Pro			
340	345	350	
Lys Glu Pro Ala Pro Thr Thr Thr Lys Glu Pro Ala Pro Thr Thr Pro			
355	360	365	
Lys Glu Pro Ala Pro Thr Thr Pro Glu Thr Pro Pro Pro Thr Thr Ser			
370	375	380	
Glu Val Ser Thr Pro Thr Thr Lys Glu Pro Thr Thr Ile His Lys			
385	390	395	400
Ser Pro Asp Glu Ser Thr Pro Glu Leu Ser Ala Glu Pro Thr Pro Lys			
405	410	415	
Ala Leu Glu Asn Ser Pro Lys Glu Pro Gly Val Pro Thr Thr Lys Thr			
420	425	430	
Pro Ala Ala Thr Lys Pro Glu Met Thr Thr Thr Ala Lys Asp Lys Thr			
435	440	445	
Thr Glu Arg Asp Leu Arg Thr Thr Pro Glu Thr Thr Thr Ala Ala Pro			
450	455	460	
Lys Met Thr Lys Glu Thr Ala Thr Thr Glu Lys Thr Thr Glu Ser			
465	470	475	480
Lys Ile Thr Ala Thr Thr Thr Gln Val Thr Ser Thr Thr Gln Asp			
485	490	495	
Thr Thr Pro Phe Lys Ile Thr Thr Leu Lys Thr Thr Thr Leu Ala Pro			
500	505	510	
Lys Val Thr Thr Lys Lys Thr Ile Thr Thr Thr Glu Ile Met Asn			
515	520	525	
Lys Pro Glu Glu Thr Ala Lys Pro Lys Asp Arg Ala Thr Asn Ser Lys			
530	535	540	
Ala Thr Thr Pro Lys Pro Gln Lys Pro Thr Lys Ala Pro Lys Lys Pro			
545	550	555	560
Thr Ser Thr Lys Lys Pro Lys Thr Met Pro Arg Val Arg Lys Pro Lys			
565	570	575	
Thr Thr Pro Thr Pro Arg Lys Met Thr Ser Thr Met Pro Glu Leu Asn			
580	585	590	
Pro Thr Ser Arg Ile Ala Glu Ala Met Leu Gln Thr Thr Arg Pro			
595	600	605	

Asn Gln Thr Pro Asn Ser Lys Leu Val Glu Val Asn Pro Lys Ser Glu  
 610 615 620  
 Asp Ala Gly Gly Ala Glu Gly Glu Thr Pro His Met Leu Leu Arg Pro  
 625 630 635 640  
 His Val Phe Met Pro Glu Val Thr Pro Asp Met Asp Tyr Leu Pro Arg  
 645 650 655  
 Val Pro Asn Gln Gly Ile Ile Ile Asn Pro Met Leu Ser Asp Glu Thr  
 660 665 670  
 Asn Ile Cys Asn Gly Lys Pro Val Asp Gly Leu Thr Thr Leu Arg Asn  
 675 680 685  
 Gly Thr Leu Val Ala Phe Arg Gly His Tyr Phe Trp Met Leu Ser Pro  
 690 695 700  
 Phe Ser Pro Pro Ser Pro Ala Arg Arg Ile Thr Glu Val Trp Gly Ile  
 705 710 715 720  
 Pro Ser Pro Ile Asp Thr Val Phe Thr Arg Cys Asn Cys Glu Gly Lys  
 725 730 735  
 Thr Phe Phe Phe Lys Asp Ser Gln Tyr Trp Arg Phe Thr Asn Asp Ile  
 740 745 750  
 Lys Asp Ala Gly Tyr Pro Lys Pro Ile Phe Lys Gly Phe Gly Gly Leu  
 755 760 765  
 Thr Gly Gln Ile Val Ala Ala Leu Ser Thr Ala Lys Tyr Lys Asn Trp  
 770 775 780  
 Pro Glu Ser Val Tyr Phe Phe Lys Arg Gly Gly Ser Ile Gln Gln Tyr  
 785 790 795 800  
 Ile Tyr Lys Gln Glu Pro Val Gln Lys Cys Pro Gly Arg Arg Pro Ala  
 805 810 815  
 Leu Asn Tyr Pro Val Tyr Gly Glu Thr Thr Gln Val Arg Arg Arg Arg  
 820 825 830  
 Phe Glu Arg Ala Ile Gly Pro Ser Gln Thr His Thr Ile Arg Ile Gln  
 835 840 845  
 Tyr Ser Pro Ala Arg Leu Ala Tyr Gln Asp Lys Gly Val Leu His Asn  
 850 855 860  
 Glu Val Lys Val Ser Ile Leu Trp Arg Gly Leu Pro Asn Val Val Thr  
 865 870 875 880  
 Ser Ala Ile Ser Leu Pro Asn Ile Arg Lys Pro Asp Gly Tyr Asp Tyr  
 885 890 895

Tyr Ala Phe Ser Lys Asp Gln Tyr Tyr Asn Ile Asp Val Pro Ser Arg  
 900 905 910  
 Thr Ala Arg Ala Ile Thr Thr Arg Ser Gly Gln Thr Leu Ser Lys Val  
 915 920 925  
 Trp Tyr Asn Cys Pro  
 930

<210> 4875

<211> 216

<212> PRT

<213> Homo sapiens

<400> 4875

Met Arg Trp Trp His Arg Cys Gly Gln Pro Gly Thr Asp Val Val Leu  
 1 5 10 15  
 Thr Gly Lys Asn Leu Pro Arg Pro Thr Leu Ser Thr Pro Ala Glu Ser  
 20 25 30  
 Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro  
 35 40 45  
 His Ser Cys Gly Glu Leu Thr Ala Arg Pro Arg Gly Ala Arg Gly Ala  
 50 55 60  
 Gln Arg Pro Arg Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg  
 65 70 75 80  
 Gly Arg Thr Trp Gly Pro Thr Pro Thr Leu Pro Thr Pro Ala Glu Ser  
 85 90 95  
 Ser Gln Pro Gly Gln Gly Ala His Val Gly Pro Asn Ala His Ala Pro  
 100 105 110  
 His Ser Cys Gly Glu Leu Thr Ala Arg Pro Gly Gly Ala Arg Gly Ala  
 115 120 125  
 Gln Arg Pro His Ser Pro Leu Leu Arg Arg Ala His Ser Gln Ala Arg  
 130 135 140  
 Gly Arg Thr Trp Gly Pro Thr Phe Arg Asn Lys Ile Ile Val Tyr Ser  
 145 150 155 160  
 Phe Leu Phe Phe Leu Lys Ser Val Phe Leu Leu Arg Thr Pro Asp Val  
 165 170 175

Cys Gly Ser Glu Ala Gln Trp Ala Tyr Ser Tyr Leu Thr Trp Gln Thr  
 180 185 190  
 Trp Lys Trp Lys Leu Leu Cys Ile Thr Arg Ile Ser Arg Ala Ser Ala  
 195 200 205  
 Ser Cys Trp Pro Asp Arg Val Pro  
 210 215

<210> 4876

<211> 904

<212> PRT

<213> Homo sapiens

<400> 4876

Met Ala Glu Ala Leu Leu Ala Cys Cys Pro Gly Asp Gln Lys Pro Gly  
 1 5 10 15  
 Ile Leu Ala Arg Leu Lys Asp Ile Lys Ala Gln Trp Glu Glu Thr Val  
 20 25 30  
 Thr Tyr Met Thr His Cys His Ser Arg Ile Glu Trp Val Trp Leu His  
 35 40 45  
 Trp Ser Glu Tyr Leu Leu Ala Arg Asp Glu Phe Tyr Arg Trp Phe Gln  
 50 55 60  
 Lys Met Met Val Thr Leu Glu Pro His Ile Glu Leu Gln Leu Gly Leu  
 65 70 75 80  
 Lys Glu Lys Gln Trp Gln Leu Ser His Ala Gln Val Leu Leu His Asn  
 85 90 95  
 Val Asp Asn Gln Ala Val Leu Asp Arg Leu Leu Glu Glu Ala Ala  
 100 105 110  
 Ser Leu Phe Asn Arg Ile Gly Asp Pro Ser Val Asp Glu Asp Ala Gln  
 115 120 125  
 Lys Arg Met Lys Ala Glu Tyr Asp Ala Val Lys Ala Lys Ala Gln Lys  
 130 135 140  
 Arg Val Asp Leu Leu Glu Gln Val Ala Arg Glu His Glu Glu Tyr Gln  
 145 150 155 160  
 Ala Gly Val Asp Glu Phe Gln Leu Trp Leu Lys Ala Val Val Glu Lys  
 165 170 175

Val Asn Gly Cys Leu Gly Arg Asn Cys Lys Leu Pro Ile Thr Gln Arg  
                  180                 185                 190  
 Leu Ser Thr Leu Gln Asp Ile Ala Lys Asp Phe Pro Arg Gly Glu Glu  
                  195                 200                 205  
 Ser Leu Glu Thr Leu Glu Glu Gln Ser Ala Gly Val Ile Arg Asn Thr  
                  210                 215                 220  
 Ser Pro Leu Gly Ala Glu Lys Ile Thr Gly Glu Leu Glu Glu Met Arg  
                  225                 230                 235                 240  
 Lys Val Leu Glu Lys Leu Arg Ala Leu Trp Glu Glu Glu Glu Arg  
                  245                 250                 255  
 Leu Arg Gly Leu Leu Arg Ser Arg Gly Ala Trp Glu Gln Gln Ile Lys  
                  260                 265                 270  
 Gln Leu Glu Ala Glu Leu Ser Glu Phe Arg Met Val Leu Gln Arg Leu  
                  275                 280                 285  
 Ala Gln Glu Gly Leu Gln Pro Ala Ala Lys Ala Gly Thr Glu Asp Glu  
                  290                 295                 300  
 Leu Val Ala His Trp Arg Arg Tyr Ser Ala Thr Arg Ala Ala Leu Ala  
                  305                 310                 315                 320  
 Ser Glu Glu Pro Arg Val Asp Arg Leu Gln Ala Gln Leu Lys Glu Leu  
                  325                 330                 335  
 Ile Val Phe Pro His Asn Leu Lys Pro Leu Ser Asp Ser Val Ile Ala  
                  340                 345                 350  
 Thr Ile Gln Glu Tyr Gln Ser Leu Lys Val Lys Ser Ala Arg Leu Arg  
                  355                 360                 365  
 Asn Ala Ala Ala Val Glu Leu Trp Gln His Phe Gln Arg Pro Leu Gln  
                  370                 375                 380  
 Asp Leu Gln Leu Trp Lys Ala Leu Ala Gln Arg Leu Leu Glu Val Thr  
                  385                 390                 395                 400  
 Ala Ser Leu Pro Asp Leu Pro Ser Leu His Thr Phe Leu Pro Gln Ile  
                  405                 410                 415  
 Glu Ala Ala Leu Met Glu Ser Ser Arg Leu Lys Glu Leu Leu Thr Met  
                  420                 425                 430  
 Leu Gln Leu Lys Lys Asp Leu Leu Ile Gly Ile Phe Gly Gln Glu Arg  
                  435                 440                 445  
 Ala Thr Ala Leu Leu Glu Gln Val Ala Gly Ser Met Arg Asp Arg Asp  
                  450                 455                 460

Leu Leu His Asn Ser Leu Leu Gln Arg Lys Ser Lys Leu Gln Ser Leu  
 465 470 475 480  
 Leu Ala Gln His Lys Asp Phe Gly Ala Ala Phe Glu Pro Leu Gln Arg  
 485 490 495  
 Lys Leu Leu Asp Leu Gln Val Arg Val Gln Ala Glu Lys Gly Leu Gln  
 500 505 510  
 Arg Asp Leu Pro Gly Lys Gln Ala Gln Leu Ser Arg Leu Gln Gly Leu  
 515 520 525  
 Gln Glu Glu Gly Leu Asp Leu Gly Ala Gln Met Glu Ala Ala Arg Pro  
 530 535 540  
 Leu Val Gln Glu Asn Pro Asn His Gln His Lys Met Asp Gln Leu Ser  
 545 550 555 560  
 Ser Asp Phe Gln Ala Leu Gln Arg Ser Leu Glu Asp Leu Val Asp Arg  
 565 570 575  
 Cys Arg Gln Ser Val Gln Glu His Cys Thr Phe Ser His Gln Leu Leu  
 580 585 590  
 Glu Leu Arg Gln Trp Ile Val Val Thr Met Gln Lys Leu Glu Ala His  
 595 600 605  
 Arg Gly Glu Ala Gly Pro Gly Asp Ala Glu Ser Gln Glu Ala Glu Phe  
 610 615 620  
 Glu Arg Leu Val Ala Glu Phe Pro Glu Lys Glu Ala Gln Leu Ser Leu  
 625 630 635 640  
 Val Glu Ala Gln Gly Trp Leu Val Met Glu Lys Ser Ser Pro Glu Gly  
 645 650 655  
 Ala Ala Val Val Gln Glu Glu Leu Arg Glu Leu Ala Glu Ser Trp Arg  
 660 665 670  
 Ala Leu Arg Leu Leu Glu Glu Ser Leu Leu Ser Leu Ile Arg Asn Trp  
 675 680 685  
 His Leu Gln Arg Met Glu Val Asp Ser Gly Lys Lys Met Val Phe Thr  
 690 695 700  
 Asn Asn Ile Pro Lys Ser Gly Phe Leu Ile Asn Pro Met Asp Pro Ile  
 705 710 715 720  
 Pro Arg His Arg Arg Glu Glu Glu Gly Ser His Glu Asp Phe Ser  
 725 730 735  
 Gln Leu Leu Arg Asn Phe Gly Gln Trp Leu Gln Val Glu Asn Ser Lys  
 740 745 750

Leu Val Arg Ile Ile Ala Met Arg Thr Ser Thr Ala Glu Asp Leu Arg  
 755 760 765  
 Thr Arg Lys Ser Lys Leu Gln Glu Leu Glu Ala Arg Val Pro Glu Gly  
 770 775 780  
 Gln His Leu Phe Glu Asn Leu Leu Arg Leu Gly Pro Ala Arg Gly Thr  
 785 790 795 800  
 Ser Asp Glu Leu Glu Asp Leu Arg Tyr Gln Trp Met Leu Tyr Lys Ser  
 805 810 815  
 Lys Leu Lys Asp Ser Gly His Leu Leu Thr Gln Ser Ser Pro Gly Glu  
 820 825 830  
 Pro Thr Gly Phe Gln Lys Thr Arg Arg Trp Arg Gly Leu Gly Ser Leu  
 835 840 845  
 Phe Arg Arg Ala Cys Cys Val Ala Leu Pro Leu Gln Leu Leu Leu  
 850 855 860  
 Leu Phe Leu Leu Leu Phe Leu Leu Pro Ile Arg Glu Glu Asp Arg  
 865 870 875 880  
 Ser Cys Thr Leu Ala Asn Asn Phe Ala Arg Ser Phe Thr Leu Met Leu  
 885 890 895  
 Arg Tyr Asn Gly Pro Pro Pro Thr  
 900

&lt;210&gt; 4877

&lt;211&gt; 164

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4877

Met Ser Glu Pro Ser Pro Cys Pro Pro Glu Gly Val Gln Leu Cys Gly  
 1 5 10 15  
 Pro Ala Leu Tyr Arg Leu Val Pro Cys Val Cys Ala Val Ser Val Cys  
 20 25 30  
 Leu Leu Pro Gln Val Leu Lys Lys Tyr Pro Arg Leu Trp Cys Met Thr  
 35 40 45  
 Lys Pro Pro Ser Arg Arg Pro Lys Leu Tyr Ile Val Asn Leu Gln Trp  
 50 55 60

Thr Pro Lys Asp Asp Trp Ala Ala Leu Lys Leu His Gly Lys Cys Asp  
 65 70 75 80  
 Asp Val Met Arg Leu Leu Met Ala Glu Leu Gly Leu Glu Ile Pro Ala  
 85 90 95  
 Tyr Ser Arg Trp Gln Asp Pro Ile Phe Ser Leu Ala Thr Pro Leu Arg  
 100 105 110  
 Ala Gly Glu Glu Gly Ser His Ser Arg Lys Ser Leu Cys Arg Ser Arg  
 115 120 125  
 Glu Glu Ala Pro Pro Gly Asp Arg Gly Ala Pro Leu Ser Ser Ala Pro  
 130 135 140  
 Ile Leu Gly Gly Trp Phe Gly Arg Gly Cys Thr Lys Arg Thr Lys Arg  
 145 150 155 160  
 Lys Lys Val Thr

<210> 4878

<211> 477

<212> PRT

<213> Homo sapiens

<400> 4878

Met Lys Leu Ile Arg Ser Ser Ser Cys His Val Gly Ser Ala Arg Lys  
 1 5 10 15  
 Leu His His Trp Arg Ala Gly Gln Thr Glu Pro Gly Trp Ala Gly Thr  
 20 25 30  
 Arg His Asp Ser Pro Val Pro Leu Pro Pro Arg Gly Gly Leu Ala Ala  
 35 40 45  
 Asp Asn Val Leu Leu Ser Ser Asp Gly Ser His Ala Ala Leu Cys Asp  
 50 55 60  
 Phe Gly His Ala Val Cys Leu Gln Pro Asp Gly Leu Gly Lys Ser Leu  
 65 70 75 80  
 Leu Thr Gly Asp Tyr Ile Pro Gly Thr Glu Thr His Met Ala Pro Glu  
 85 90 95  
 Val Val Leu Gly Arg Ser Cys Asp Ala Lys Val Asp Val Trp Ser Ser  
 100 105 110

Cys Cys Met Met Leu His Met Leu Asn Gly Cys His Pro Trp Thr Gln  
                  115                 120                 125  
 Phe Phe Arg Gly Pro Leu Cys Leu Lys Ile Ala Ser Glu Pro Pro Pro  
                  130                 135                 140  
 Val Arg Glu Ile Pro Pro Ser Cys Ala Pro Leu Thr Ala Gln Ala Ile  
                  145                 150                 155                 160  
 Gln Glu Gly Leu Arg Lys Glu Pro Ile His Arg Val Ser Ala Ala Glu  
                  165                 170                 175  
 Leu Gly Gly Lys Val Asn Arg Ala Leu Gln Gln Val Gly Gly Leu Lys  
                  180                 185                 190  
 Ser Pro Trp Arg Gly Glu Tyr Lys Glu Pro Arg His Pro Pro Pro Asn  
                  195                 200                 205  
 Gln Ala Asn Tyr His Gln Thr Leu His Ala Gln Pro Arg Glu Leu Ser  
                  210                 215                 220  
 Pro Arg Ala Pro Gly Pro Arg Pro Ala Glu Glu Thr Thr Gly Arg Ala  
                  225                 230                 235                 240  
 Pro Lys Leu Gln Pro Pro Leu Pro Pro Glu Pro Pro Glu Pro Asn Lys  
                  245                 250                 255  
 Ser Pro Pro Leu Thr Leu Ser Lys Glu Glu Ser Gly Met Trp Glu Pro  
                  260                 265                 270  
 Leu Pro Leu Ser Ser Leu Glu Pro Ala Pro Ala Arg Asn Pro Ser Ser  
                  275                 280                 285  
 Pro Glu Arg Lys Ala Thr Val Pro Glu Gln Glu Leu Gln Gln Leu Glu  
                  290                 295                 300  
 Ile Glu Leu Phe Leu Asn Ser Leu Ser Gln Pro Phe Ser Leu Glu Glu  
                  305                 310                 315                 320  
 Gln Glu Gln Ile Leu Ser Cys Leu Ser Ile Asp Ser Leu Ser Leu Ser  
                  325                 330                 335  
 Asp Asp Ser Glu Lys Asn Pro Ser Lys Ala Ser Gln Ser Ser Arg Asp  
                  340                 345                 350  
 Thr Leu Ser Ser Gly Val His Ser Trp Ser Ser Gln Ala Glu Ala Arg  
                  355                 360                 365  
 Ser Ser Ser Trp Asn Met Val Leu Ala Arg Gly Arg Pro Thr Asp Thr  
                  370                 375                 380  
 Pro Ser Tyr Phe Asn Gly Val Lys Val Gln Ile Gln Ser Leu Asn Gly

385	390	395	400
Glu His Leu His Ile Arg Glu Phe His Arg Val Lys Val Gly Asp Ile			
405	410	415	
Ala Thr Gly Ile Ser Ser Gln Ile Pro Ala Ala Ala Phe Ser Leu Val			
420	425	430	
Thr Lys Asp Gly Gln Pro Val Arg Tyr Asp Met Glu Val Pro Asp Ser			
435	440	445	
Gly Ile Asp Leu Gln Cys Thr Leu Ala Pro Asp Gly Ser Phe Ala Trp			
450	455	460	
Ser Trp Arg Val Lys His Gly Gln Leu Glu Asn Arg Pro			
465	470	475	

<210> 4879

<211> 486

<212> PRT

<213> Homo sapiens

<400> 4879

Met Gly Ser Glu Lys Asp Ser Glu Ser Pro Arg Ser Thr Ser Leu His			
1	5	10	15
Ala Ala Ala Pro Asp Pro Lys Cys Arg Ser Gly Gly Arg Arg Arg Arg			
20	25	30	
Leu Leu Ser Cys Pro His Arg Ser Cys Arg Asp Cys Leu Arg His Tyr			
35	40	45	
Leu Arg Leu Glu Ile Ser Glu Ser Arg Val Pro Ile Ser Cys Pro Glu			
50	55	60	
Cys Ser Glu Arg Leu Asn Pro His Asp Ile Arg Leu Leu Leu Ala Asp			
65	70	75	80
Pro Pro Leu Met His Lys Tyr Glu Glu Phe Met Leu Arg Arg Tyr Leu			
85	90	95	
Ala Ser Asp Pro Asp Cys Arg Trp Cys Pro Ala Pro Asp Cys Gly Tyr			
100	105	110	
Ala Val Ile Ala Tyr Gly Cys Ala Ser Cys Pro Lys Leu Thr Cys Glu			
115	120	125	
Arg Glu Gly Cys Gln Thr Glu Phe Phe Cys Tyr His Cys Lys Gln Ile Trp			

130	135	140
His Pro Asn Gln Thr Cys Asp Met Ala Arg Gln Gln Arg Ala Gln Thr		
145	150	155
Leu Arg Val Arg Thr Lys His Thr Ser Gly Leu Ser Tyr Gly Gln Glu		
165	170	175
Ser Gly Pro Asp Asp Ile Lys Pro Cys Pro Arg Cys Ser Ala Tyr Ile		
180	185	190
Ile Lys Met Asn Asp Gly Ser Cys Asn His Met Thr Cys Ala Val Cys		
195	200	205
Gly Cys Glu Phe Cys Trp Leu Cys Met Lys Glu Ile Ser Asp Leu His		
210	215	220
Tyr Leu Ser Pro Ser Gly Cys Thr Phe Trp Gly Lys Lys Pro Trp Ser		
225	230	235
Arg Lys Lys Lys Ile Leu Trp Gln Leu Gly Thr Leu Ile Gly Ala Pro		
245	250	255
Val Gly Ile Ser Leu Ile Ala Gly Ile Ala Ile Pro Ala Met Val Ile		
260	265	270
Gly Ile Pro Val Tyr Val Gly Arg Lys Ile His Ser Arg Tyr Glu Gly		
275	280	285
Arg Lys Thr Ser Lys His Lys Arg Asn Leu Ala Ile Thr Gly Gly Val		
290	295	300
Thr Leu Ser Val Ile Ala Ser Pro Val Ile Ala Ala Val Ser Val Gly		
305	310	315
Ile Gly Val Pro Ile Met Leu Ala Tyr Val Tyr Gly Val Val Pro Ile		
325	330	335
Ser Leu Cys Arg Gly Gly Cys Gly Val Ser Thr Ala Asn Gly Lys		
340	345	350
Gly Val Lys Ile Glu Phe Asp Glu Asp Asp Gly Pro Ile Thr Val Ala		
355	360	365
Asp Ala Trp Arg Ala Leu Lys Asn Pro Ser Ile Gly Glu Ser Ser Ile		
370	375	380
Glu Gly Leu Thr Ser Val Leu Ser Thr Ser Gly Ser Pro Thr Asp Gly		
385	390	395
Leu Ser Val Met Gln Gly Pro Tyr Ser Glu Thr Ala Ser Phe Ala Ala		
405	410	415
Leu Ser Gly Gly Thr Leu Ser Gly Gly Ile Leu Ser Ser Gly Lys Gly		

420	425	430
Lys Tyr Ser Arg Leu Glu Val Gln Ala Asp Val Gln Lys Glu Ile Phe		
435	440	445
Pro Lys Asp Thr Ala Ser Leu Gly Ala Ile Ser Asp Asn Ala Ser Thr		
450	455	460
Arg Ala Met Ala Gly Ser Ile Ile Ser Ser Tyr Asn Pro Gln Asp Arg		
465	470	475
Phe Ser Met Ile His Ala		
485		

<210> 4880

<211> 492

<212> PRT

<213> Homo sapiens

<400> 4880

Met Ala Met Ala Leu Pro Met Pro Gly Pro Gln Glu Ala Val Val Phe			
1	5	10	15
Glu Asp Val Ala Val Tyr Phe Thr Arg Ile Glu Trp Ser Cys Leu Ala			
20	25	30	
Pro Asp Gln Gln Ala Leu Tyr Arg Asp Val Met Leu Glu Asn Tyr Gly			
35	40	45	
Asn Leu Ala Ser Leu Gly Phe Leu Val Ala Lys Pro Ala Leu Ile Ser			
50	55	60	
Leu Leu Glu Gln Gly Glu Glu Pro Gly Ala Leu Ile Leu Gln Val Ala			
65	70	75	80
Glu Gln Ser Val Ala Lys Ala Ser Leu Cys Thr Asp Ser Arg Met Glu			
85	90	95	
Ala Gly Ile Met Glu Ser Pro Leu Gln Arg Lys Leu Ser Arg Gln Ala			
100	105	110	
Gly Leu Pro Gly Thr Val Trp Gly Cys Leu Pro Trp Gly His Pro Val			
115	120	125	
Gly Gly His Pro Ala Pro Pro His Pro His Gly Gly Pro Glu Asp Gly			
130	135	140	
Ser Asp Lys Pro Thr His Pro Arg Ala Arg Glu His Ser Ala Ser Pro			

145	150	155	160
Arg Val Leu Gln Glu Asp Leu Gly Arg Pro Val Gly Ser Ser Ala Pro			
165	170	175	
Arg Tyr Arg Cys Val Cys Gly Lys Ala Phe Arg Tyr Asn Ser Leu Leu			
180	185	190	
Leu Arg His Gln Ile Val His Thr Gly Ala Lys Pro Phe Gln Cys Thr			
195	200	205	
Glu Cys Gly Lys Ala Phe Lys Gln Ser Ser Ile Leu Leu Arg His Gln			
210	215	220	
Leu Ile His Thr Glu Glu Lys Pro Phe Gln Cys Gly Glu Cys Gly Lys			
225	230	235	240
Ala Phe Arg Gln Ser Thr Gln Leu Ala Ala His His Arg Val His Thr			
245	250	255	
Arg Glu Arg Pro Tyr Ala Cys Gly Glu Cys Gly Lys Ala Phe Ser Arg			
260	265	270	
Ser Ser Arg Leu Leu Gln His Gln Lys Phe His Thr Gly Glu Lys Pro			
275	280	285	
Phe Ala Cys Thr Glu Cys Gly Lys Ala Phe Cys Arg Arg Phe Thr Leu			
290	295	300	
Asn Glu His Gly Arg Ile His Ser Gly Glu Arg Pro Tyr Arg Cys Leu			
305	310	315	320
Arg Cys Gly Gln Arg Phe Ile Arg Gly Ser Ser Leu Leu Lys His His			
325	330	335	
Arg Leu His Ala Gln Glu Gly Ala Gln Asp Gly Gly Ala Gly Gln Gly			
340	345	350	
Ala Leu Leu Gly Ala Ala Gln Arg Pro Gln Ala Gly Asp Pro Pro His			
355	360	365	
Glu Cys Pro Val Cys Gly Arg Pro Phe Arg His Asn Ser Leu Leu Leu			
370	375	380	
Leu His Leu Arg Leu His Thr Gly Glu Lys Pro Phe Glu Cys Ala Glu			
385	390	395	400
Cys Gly Lys Ala Phe Gly Arg Lys Ser Asn Leu Thr Leu His Gln Lys			
405	410	415	
Ile His Thr Lys Glu Lys Pro Phe Ala Cys Thr Glu Cys Gly Lys Ala			
420	425	430	
Phe Arg Arg Ser Tyr Thr Leu Asn Glu His Tyr Arg Leu His Ser Gly			

435	440	445
Glu Arg Pro Tyr Arg Cys Arg Ala Cys Gly Arg Ala Cys Ser Arg Leu		
450	455	460
Ser Thr Leu Ile Gln His Gln Lys Val His Gly Arg Glu Pro Gly Glu		
465	470	475
Asp Thr Glu Gly Arg Arg Ala Pro Cys Trp Ala Ser		
485	490	

<210> 4881

<211> 232

<212> PRT

<213> Homo sapiens

<400> 4881

Met Ile Arg Lys Val Lys Val Glu Asp Glu Asp Gln Glu Ala Glu Glu			
1	5	10	15
Glu Val Glu Trp Pro Gln His Leu Ser Leu Leu Pro Ser Pro Phe Pro			
20	25	30	
Ala Pro Asp Leu Gly His Leu Ala Ala Ala Tyr Lys Leu Glu Pro Gly			
35	40	45	
Ala Pro Gly Ala Leu Ser Gly Leu Ala Leu Ser Gly Trp Gly Pro Met			
50	55	60	
Pro Glu Lys Pro Tyr Gly Cys Gly Glu Cys Glu Arg Arg Phe Arg Asp			
65	70	75	80
Gln Leu Thr Leu Arg Leu His Gln Arg Leu His Arg Gly Glu Gly Pro			
85	90	95	
Cys Ala Cys Pro Ser Leu Val Arg Ser Pro Arg Gly Gly Ala Ala Pro			
100	105	110	
Ala Leu Leu Leu Ser Leu Val Leu Thr Arg Thr Leu Ser Cys Pro Gln			
115	120	125	
Phe Arg Glu Ala Arg Ala Met Arg Pro Pro Gly Val Ser Lys Ala Thr			
130	135	140	
Trp Ala Ala Ala Arg Arg Phe Gly Arg Arg Gly Thr Pro Val Ser Phe			
145	150	155	160
Pro Gln Cys Leu Arg Pro His Ser Ile Pro Ser Ser Asp Leu Leu Gly			

165	170	175
Gln Arg Leu Ser Glu Pro Leu Leu Gly Thr Ala Glu Leu Lys Phe Leu		
180	185	190
Glu Gly Ser His Pro Gly Ala Pro Leu Glu Ser Arg Tyr Phe Pro Asp		
195	200	205
Pro Ala Arg Pro Gln Pro Gly Gln Glu Arg Val Val Ile Tyr Val Leu		
210	215	220
Lys Val Ser Leu Lys Leu Lys Ser		
225	230	

<210> 4882

<211> 158

<212> PRT

<213> Homo sapiens

<400> 4882

Met Gly Arg Ser Pro Arg Lys Ile Asp Gln Phe Cys Asn Ser Ser Asn			
1	5	10	15
Met Val His Gly Ser Val Thr Phe Arg Asp Val Ala Ile Asp Phe Ser			
20	25	30	
Gln Glu Glu Trp Glu Cys Leu Gln Pro Asp Gln Arg Thr Leu Tyr Arg			
35	40	45	
Asp Val Met Leu Glu Asn Tyr Ser His Leu Ile Ser Leu Gly Ser Ser			
50	55	60	
Ile Ser Lys Pro Asp Val Ile Thr Leu Leu Glu Gln Glu Lys Glu Pro			
65	70	75	80
Trp Met Val Val Arg Lys Glu Thr Ser Arg Arg Tyr Pro Asp Leu Glu			
85	90	95	
Leu Lys Tyr Gly Pro Glu Lys Val Ser Pro Glu Asn Asp Thr Ser Glu			
100	105	110	
Val Asn Leu Pro Lys Gln Ile Ser Ser Leu Ala Ser Lys Pro Ser Phe			
115	120	125	
Thr Ala Ile His Ile Gln Arg Arg Ile His Cys Arg Ile Cys Ile Ala			
130	135	140	
Phe Gly Tyr Leu Ser Leu Val Tyr Cys Ser Leu Glu Ile Leu			

145 150 155

<210> 4883

<211> 296

<212> PRT

<213> Homo sapiens

<400> 4883

Met Ala Gln Arg Val Lys Phe Pro Thr Asp Thr Leu Gln Glu Leu Leu  
 1 5 10 15

Asp Val His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met Glu  
 20 25 30

His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met Glu  
 35 40 45

Thr Thr Met Asn Lys Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu Ser  
 50 55 60

Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly Leu  
 65 70 75 80

Met Glu Ser Ile Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His Lys  
 85 90 95

Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln Val  
 100 105 110

Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu Glu  
 115 120 125

Ser Gln Met Val Ile Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala Leu  
 130 135 140

Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu Ala  
 145 150 155 160

Ala Glu Lys Glu Gln Glu Leu Leu Lys Gln Lys Leu Gln Glu Gln Gln  
 165 170 . 175

Gln Gln Met Glu Ala Gln Val Lys Ser Arg Lys Glu Asn Ile Ala Gln  
 180 185 190

Leu Lys Glu Lys Leu Gln Met Glu Arg Glu His Leu Leu Arg Glu Gln  
 195 200 205

Ile Met Met Leu Glu His Thr Gln Lys Val Gln Asn Asp Trp Leu His

210	215	220
Glu Gly Phe Lys Lys Tyr Glu Glu Met Asn Ala Glu Ile Ser Gln		
225	230	235
Phe Lys Arg Met Ile Asp Thr Thr Lys Asn Asp Asp Thr Pro Trp Ile		
245	250	255
Ala Arg Thr Leu Asp Asn Leu Ala Asp Glu Leu Thr Ala Ile Leu Ser		
260	265	270
Ala Pro Ala Lys Leu Ile Gly His Gly Val Lys Gly Val Ser Ser Leu		
275	280	285
Phe Lys Lys His Lys Leu Pro Phe		
290	295	

210 4884

211 153

<212> PRT

<213> *Homo sapiens*

<400> 4884

Met	Pro	Arg	Leu	Pro	Ala	His	Arg	His	Ile	Pro	Ser	Phe	Asn	Pro	Arg
1			5						10					15	
Gly	Trp	Glu	Pro	Asn	Lys	Leu	Trp	Gln	Thr	Asp	Val	Thr	His	Ile	Pro
									25					30	
Glu	Phe	Gly	Lys	Leu	Arg	Tyr	Val	His	Val	Ser	Ile	Asp	Leu	Ile	Ser
									40					45	
Ala	Asn	Ala	Leu	Pro	Gly	Glu	Ser	Thr	Gly	Tyr	Val	Thr	Lys	His	Leu
									55					60	
Leu	Leu	Thr	Phe	Ala	Phe	Met	Gly	Gln	Pro	Thr	Lys	Ile	Lys	Thr	Asn
									70					75	
Asn	Asp	Leu	Ala	Tyr	Ala	Ser	Ser	Gln	Phe	Gln	Gln	Phe	Cys	His	Met
									85					90	
Trp	Asn	Ile	Gln	His	Ser	Thr	Gly	Ile	Pro	Tyr	Asn	Pro	Gln	Gly	Gln
									100					105	
Ala	Ile	Val	Glu	Cys	Ala	His	Ser	Thr	Leu	Lys	Asn	Met	Leu	Lys	Lys
									115					120	
Gln	Lys	Arg	Gly	Val	Trp	Val	Arg	Thr	Leu	Gln	His	Tyr	Trp	His	Lys

130 135 140

Pro Tyr Leu Pro Leu Ile Phe Lys Ile  
145 150

<210> 4885

<211> 562

<212> PRT

<213> Homo sapiens

<400> 4885

Met Leu Asp Thr Ile Ala Arg Ala Leu Gln Asp Leu Gly Arg Gln Val

1 5 10 15

Leu Pro Thr Leu Pro Ser Leu Ser Gln Glu Glu Val Ser Ile Ile Trp  
20 25 30

Gly Asn Val Ser Glu Phe Val Arg Arg Gln Leu Thr Leu His Lys Gly  
35 40 45

Val Gln Ile Pro Ala Phe Gly Thr Phe Thr Phe Ile Arg Gln Lys Leu  
50 55 60

Glu Val Gly Asn Asn Lys Phe Ile Leu Ile Gln Arg Pro Val Phe Ile  
65 70 75 80

Met Val Gly Lys Leu Val Gln Ile His Gly Leu Lys Gln Asn Lys Arg  
85 90 95

Pro Gly Thr Val Asp Ser Val Leu Ser Ser Arg Glu Ala Leu Arg Lys  
100 105 110

Trp Pro Ser Ser Val Leu Ala Phe Pro Arg Ile Glu Leu Lys Glu Met  
115 120 125

Glu Asn Lys Leu Pro Met Glu Thr Leu Val Glu Glu Cys Gly Glu Asn  
130 135 140

Arg Glu Arg Lys Cys Lys Leu Lys Asp Gln Ser Asp Lys Glu Glu Gly  
145 150 155 160

Thr Arg Asp Ile Ser Ser Pro Lys Arg Leu Arg Asp Arg Gln Ala Leu  
165 170 175

Phe Pro Ala Lys Val Thr Asn Val Ser Leu Leu Glu Lys Phe Glu Arg  
180 185 190

Ser Glu Ser Gly Gly Lys Ile Met Thr Pro Glu Ser Leu Ser Tyr Pro

195	200	205
Ser Cys Leu Lys His Asp Ser Glu Met Lys Pro Gln Thr Ser Pro Ala		
210	215	220
Cys Gln Asp His Asn Lys Ala Gly Gln Glu Met Cys Tyr Val Cys Leu		
225	230	235
Gln Arg Ala Gln Arg Asn Ser Leu Leu Tyr Tyr Ser Glu Glu Arg Arg		
245	250	255
Arg Glu Ile Glu Asp Glu Arg Leu Ile Gln Gln Tyr Gln Met Leu Lys		
260	265	270
Asp Gln Glu Ala Leu Phe Arg His Gln Met Lys Ser Leu Ala Thr Arg		
275	280	285
Glu Gln Asn Gln Lys Asn Ala Ala Tyr Asn Leu Gly Val Ala Glu Ala		
290	295	300
Ile Arg Asn His Lys Asn Glu Lys Pro Glu Phe Tyr Lys Ser Phe Leu		
305	310	315
Phe Asp Lys Arg Pro Leu Ser Pro Ala Leu Asn Ala Leu Lys Gln Glu		
325	330	335
Glu Tyr Ser Arg Ser Leu Leu Lys Gln Met Asp Asn Arg Gln Glu Asn		
340	345	350
Glu Ile Lys Gln Arg Gln Tyr Arg Glu Leu Met Asp Arg Leu Glu Gln		
355	360	365
Val Gln Leu Thr Glu Glu Leu Ala Ala Gln Arg Ala Lys Phe Leu Lys		
370	375	380
Asp Lys Met Glu Glu Thr Gln Cys Tyr Lys Arg Ala Leu Asp Ala Gln		
385	390	395
Ile Lys Asn Lys Pro Ser Arg Leu Pro Pro Phe Glu Pro Asp Ser Ser		
405	410	415
Glu Pro Ile Phe Gly Lys Asn Glu Gln Glu Leu Met Val Glu Lys Gln		
420	425	430
Lys Arg Glu Gln Asn Tyr Met Lys His Gln Leu Glu Ala Ala Asn		
435	440	445
His Lys Arg Lys Ala Ile Leu His Gln Leu Val Asp Gln Arg Arg Asp		
450	455	460
Leu Gln Met Leu Gln Arg Thr Gln Arg Glu His Leu Ala Asp Arg Thr		
465	470	475
Ala Glu Leu Glu Arg Val Asn Arg Val Asn Gln Cys Leu Gln Glu Asp		

485	490	495
Trp Glu Arg Ser Ala Ala Met Lys Lys Gln Arg Asp Leu Glu Asp Lys		
500	505	510
Ala Phe Glu Arg Ala Ser Asp Lys Leu Phe Leu Leu Asp Gln Cys Glu		
515	520	525
Lys Tyr Arg Arg Cys Lys Gln Cys Gln Arg Arg Thr Ser Asn Val Gly		
530	535	540
Glu Ser Asn Leu Trp Pro Leu Asn Lys Phe Leu Pro Gly Ser Arg Leu		
545	550	555
Leu Val		560

<210> 4886

<211> 385

<212> PRT

<213> Homo sapiens

<400> 4886

Met Pro Lys Lys Leu Leu Leu Pro Pro Pro Ser Ala Ser Ser Ala			
1	5	10	15
Phe Arg Val Pro Arg Ala Arg Pro Val Pro Pro Pro Ala Met Asn Ala			
20	25	30	
Ala Arg Thr Gly Tyr Arg Val Phe Ser Ala Asn Ser Thr Ala Ala Cys			
35	40	45	
Thr Glu Leu Ala Lys Arg Ile Thr Glu Arg Leu Gly Ala Glu Leu Gly			
50	55	60	
Lys Ser Val Val Tyr Gln Glu Thr Asn Gly Glu Thr Arg Val Glu Ile			
65	70	75	80
Lys Glu Ser Val Arg Gly Gln Asp Ile Phe Ile Ile Gln Thr Ile Pro			
85	90	95	
Arg Asp Val Asn Thr Ala Val Met Glu Leu Leu Ile Met Ala Tyr Ala			
100	105	110	
Leu Lys Thr Ala Cys Ala Arg Asn Ile Ile Gly Val Ile Pro Tyr Phe			
115	120	125	
Pro Tyr Ser Lys Gln Ser Lys Met Arg Lys Arg Gly Ser Ile Val Cys			

130	135	140	
Lys Leu Leu Ala Ser Met Leu Ala Lys Ala Gly Leu Thr His Ile Ile			
145	150	155	160
Thr Met Asp Leu His Gln Lys Glu Ile Gln Gly Phe Phe Ser Phe Pro			
165	170	175	
Val Asp Asn Leu Arg Ala Ser Pro Phe Leu Leu Gln Tyr Ile Gln Glu			
180	185	190	
Glu Ile Pro Asn Tyr Arg Asn Ala Val Ile Val Ala Lys Ser Pro Asp			
195	200	205	
Ala Ala Lys Arg Ala Gln Ser Tyr Ala Glu Arg Leu Arg Leu Gly Leu			
210	215	220	
Ala Val Ile His Gly Glu Ala Gln Cys Thr Glu Leu Asp Met Asp Asp			
225	230	235	240
Gly Arg His Ser Pro Pro Met Val Lys Asn Ala Thr Val His Pro Gly			
245	250	255	
Leu Glu Leu Pro Leu Met Met Ala Lys Glu Lys Pro Pro Ile Thr Val			
260	265	270	
Val Gly Asp Val Gly Gly Arg Ile Ala Ile Ile Val Asp Tyr Ile Ile			
275	280	285	
Asp Asp Val Glu Ser Phe Val Ala Ala Ala Glu Ile Leu Lys Glu Arg			
290	295	300	
Gly Ala Tyr Lys Ile Tyr Val Met Ala Thr His Gly Ile Leu Ser Ala			
305	310	315	320
Glu Ala Pro Arg Leu Ile Glu Glu Ser Ser Val Asp Glu Val Val Val			
325	330	335	
Thr Asn Thr Val Pro His Glu Val Gln Lys Leu Gln Cys Pro Lys Ile			
340	345	350	
Lys Thr Val Asp Ile Ser Leu Ile Leu Ser Glu Ala Ile Arg Arg Ile			
355	360	365	
His Asn Gly Glu Ser Met Ala Tyr Leu Phe Arg Asn Ile Thr Val Asp			
370	375	380	
Asp			
385			

&lt;211&gt; 621

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4887

Met	Asp	Leu	Leu	Thr	Arg	Glu	Asn	Val	Ala	Leu	Lys	Val	Glu	Ser	Ala
1		5		10								15			
Gln	Gln	Pro	Lys	Gln	Val	Leu	Lys	Met	Glu	Val	Ala	Val	Leu	Lys	Lys
		20			25							30			
Leu	Gln	Gly	Lys	Asp	His	Val	Cys	Arg	Phe	Ile	Gly	Cys	Gly	Arg	Asn
		35			40							45			
Glu	Lys	Phe	Asn	Tyr	Val	Val	Met	Gln	Leu	Gln	Gly	Arg	Asn	Leu	Ala
		50			55							60			
Asp	Leu	Arg	Arg	Ser	Gln	Pro	Arg	Gly	Thr	Phe	Thr	Leu	Ser	Thr	Thr
		65			70							80			
Leu	Arg	Leu	Gly	Lys	Gln	Ile	Leu	Glu	Ser	Ile	Glu	Ala	Ile	His	Ser
		85			90							95			
Val	Gly	Phe	Leu	His	Arg	Asp	Ile	Lys	Pro	Ser	Asn	Phe	Ala	Met	Gly
		100			105							110			
Arg	Leu	Pro	Ser	Thr	Tyr	Arg	Lys	Cys	Tyr	Met	Leu	Asp	Phe	Gly	Leu
		115			120							125			
Ala	Arg	Gln	Tyr	Thr	Asn	Thr	Thr	Gly	Asp	Val	Arg	Pro	Pro	Arg	Asn
		130			135							140			
Val	Ala	Gly	Phe	Arg	Gly	Thr	Val	Arg	Tyr	Ala	Ser	Val	Asn	Ala	His
		145			150							160			
Lys	Asn	Arg	Glu	Met	Gly	Arg	His	Asp	Asp	Leu	Trp	Ser	Leu	Phe	Tyr
		165			170							175			
Met	Leu	Val	Glu	Phe	Ala	Val	Gly	Gln	Leu	Pro	Trp	Arg	Lys	Ile	Lys
		180			185							190			
Asp	Lys	Glu	Gln	Val	Gly	Met	Ile	Lys	Glu	Lys	Tyr	Glu	His	Arg	Met
		195			200							205			
Leu	Leu	Lys	His	Met	Pro	Ser	Glu	Phe	His	Leu	Phe	Leu	Asp	His	Ile
		210			215							220			
Ala	Ser	Leu	Asp	Tyr	Phe	Thr	Lys	Pro	Asp	Tyr	Gln	Leu	Ile	Met	Ser
		225			230							235			240
Val	Phe	Glu	Asn	Ser	Met	Lys	Glu	Arg	Gly	Ile	Ala	Glu	Asn	Glu	Ala

245	250	255
Phe Asp Trp Glu Lys Ala Gly Thr Asp Ala Leu Leu Ser Thr Ser Thr		
260	265	270
Ser Thr Pro Pro Gln Gln Asn Thr Arg Gln Thr Ala Ala Met Phe Gly		
275	280	285
Val Val Asn Val Thr Pro Val Pro Gly Asp Leu Leu Arg Glu Asn Thr		
290	295	300
Glu Asp Val Leu Gln Gly Glu His Leu Ser Asp Gln Glu Asn Ala Pro		
305	310	315
Pro Ile Leu Pro Gly Arg Pro Ser Glu Gly Leu Gly Pro Ser Pro His		
325	330	335
Leu Val Pro His Pro Gly Gly Pro Glu Ala Glu Val Trp Glu Gly Thr		
340	345	350
Asp Val Asn Arg Asn Lys Leu Arg Ile Asn Ile Gly Lys Ser Pro Cys		
355	360	365
Val Glu Glu Glu Gln Ser Arg Gly Met Gly Val Pro Ser Ser Pro Val		
370	375	380
Arg Ala Pro Pro Asp Ser Pro Thr Thr Pro Val Arg Ser Leu Arg Tyr		
385	390	395
Arg Arg Val Asn Ser Pro Glu Ser Glu Arg Leu Ser Thr Ala Asp Gly		
405	410	415
Arg Val Glu Leu Pro Glu Arg Arg Ser Arg Met Asp Leu Pro Gly Ser		
420	425	430
Pro Ser Arg Gln Ala Cys Ser Ser Gln Pro Ala Gln Met Leu Ser Val		
435	440	445
Asp Thr Gly His Ala Asp Arg Gln Ala Ser Gly Arg Met Asp Val Ser		
450	455	460
Ala Ser Val Glu Gln Glu Ala Leu Ser Asn Ala Phe Arg Ser Val Pro		
465	470	475
Leu Ala Glu Glu Glu Asp Phe Asp Ser Lys Glu Trp Val Ile Ile Asp		
485	490	495
Lys Glu Thr Glu Leu Lys Asp Phe Pro Pro Gly Ala Glu Pro Ser Thr		
500	505	510
Ser Gly Thr Thr Asp Glu Glu Pro Glu Glu Leu Arg Pro Leu Pro Glu		
515	520	525

Glu Gly Glu Glu Arg Arg Arg Leu Gly Ala Glu Pro Phe Pro Leu Thr  
 530 535 540  
 Pro Ala Leu Gly Thr Pro Pro Ser Thr Glu Arg Val Gly Pro His Arg  
 545 550 555 560  
 Pro Thr Glu Thr Val Gly Gly Gln Thr Leu Gly Ala Leu Pro Pro  
 565 570 575  
 Ala Val Gln Pro Pro Ala Thr Thr Gly Val Leu Arg Val Leu Leu  
 580 585 590  
 His Ala Gly Asp Gly Ala Leu Pro Ser Pro Arg Arg Arg Arg Leu Leu  
 595 600 605  
 Gly Leu Leu Arg Phe Pro His Ser Ala Gln Pro Leu Gly  
 610 615 620

<210> 4888

<211> 267

<212> PRT

<213> Homo sapiens

<400> 4888

Met Phe Arg Arg Lys Ala Glu Gly Leu Asp Leu Ala Ser Cys Val Arg  
 1 5 10 15  
 Ser Leu Asp Val Leu Val Leu Asp Glu Ala Asp Arg Leu Leu Asp Met  
 20 25 30  
 Gly Phe Glu Ala Ser Ile Asn Thr Ile Leu Glu Phe Leu Pro Lys Gln  
 35 40 45  
 Arg Arg Thr Gly Leu Phe Ser Ala Thr Gln Thr Gln Glu Val Glu Asn  
 50 55 60  
 Leu Val Arg Ala Gly Leu Arg Asn Pro Val Arg Val Ser Val Lys Glu  
 65 70 75 80  
 Lys Gly Val Ala Ala Ser Ser Ala Gln Lys Thr Pro Ser Arg Leu Glu  
 85 90 95  
 Asn Tyr Tyr Met Val Cys Lys Ala Asp Glu Lys Phe Asn Gln Leu Val  
 100 105 110  
 His Phe Leu Arg Asn His Lys Gln Glu Lys His Leu Val Phe Phe Ser  
 115 120 125

Thr Cys Ala Cys Val Glu Tyr Tyr Gly Lys Ala Leu Glu Val Leu Val  
 130 135 140  
 Lys Gly Val Lys Ile Met Cys Ile His Gly Lys Met Lys Tyr Lys Arg  
 145 150 155 160  
 Asn Lys Ile Phe Met Glu Phe Arg Lys Leu Gln Ser Gly Ile Leu Val  
 165 170 175  
 Cys Thr Asp Val Met Ala Arg Gly Ile Asp Ile Pro Glu Val Asn Trp  
 180 185 190  
 Val Leu Gln Tyr Asp Pro Pro Ser Asn Ala Ser Ala Phe Val His Arg  
 195 200 205  
 Cys Gly Arg Thr Ala Arg Ile Gly His Gly Ser Ala Leu Val Phe  
 210 215 220  
 Leu Leu Pro Met Glu Glu Ser Tyr Ile Asn Phe Leu Ala Ile Ser Gln  
 225 230 235 240  
 Lys Val Ser Cys Arg Pro Phe Ser Asp Arg Met Pro Ser Asp Gly Val  
 245 250 255  
 Ala Gly Lys Val Leu Gln His Val Val Ser Asn  
 260 265

<210> 4889

<211> 700

<212> PRT

<213> Homo sapiens

<400> 4889

Met Leu Ser Asp Asp His Val Asn Glu Ile Ile Ile Gln Lys Leu Ile  
 1 5 10 15  
 Ala Ser Leu Ile Pro Met Thr Ser Arg Asp Arg Ile Lys Ala Ile Arg  
 20 25 30  
 Asn Gln Pro Arg Thr Met Glu Glu Lys Arg Asn Leu Ser Arg Gly Gly  
 35 40 45  
 Leu Thr Ile Thr Thr Glu Asp Glu Gly Arg Ala Lys Ala His Leu Thr  
 50 55 60  
 Trp Trp Lys Ile Val Asp Lys Glu Lys Ser Lys Gln Thr His Arg Ile  
 65 70 75 80

Leu Gln Leu Asn Cys Cys Ile Gln Cys Leu Asn Ser Ile Ser Arg Ala  
                   85                         90                         95  
 Tyr Arg Arg Ser Lys Asn Ser Leu Ser Glu Ile Leu Asn Ser Ile Ser  
                   100                     105                     110  
 Leu Trp Gln Lys Thr Leu Lys Ile Ile Gly Gly Lys Phe Gly Thr Ser  
                   115                     120                     125  
 Val Leu Ser Tyr Phe Asn Phe Leu Arg Trp Leu Leu Lys Phe Asn Ile  
                   130                     135                     140  
 Phe Ser Phe Ile Leu Asn Phe Ser Phe Ile Ile Ile Pro Gln Phe Thr  
                   145                     150                     155                 160  
 Val Ala Lys Lys Asn Thr Leu Gln Phe Thr Gly Leu Glu Phe Phe Thr  
                   165                     170                     175  
 Gly Val Gly Tyr Phe Arg Asp Thr Val Met Tyr Tyr Gly Phe Tyr Thr  
                   180                     185                     190  
 Asn Ser Thr Ile Gln His Gly Asn Ser Gly Ala Ser Tyr Asn Met Gln  
                   195                     200                     205  
 Leu Ala Tyr Ile Phe Thr Ile Gly Ala Cys Leu Thr Thr Cys Phe Phe  
                   210                     215                     220  
 Ser Leu Leu Phe Ser Met Ala Lys Tyr Phe Arg Asn Asn Phe Ile Asn  
                   225                     230                     235                 240  
 Pro His Ile Tyr Ser Gly Gly Ile Thr Lys Leu Ile Phe Cys Trp Asp  
                   245                     250                     255  
 Phe Thr Val Thr His Glu Lys Ala Val Lys Leu Lys Gln Lys Asn Leu  
                   260                     265                     270  
 Ser Thr Glu Ile Arg Glu Asn Leu Ser Glu Leu Arg Gln Glu Asn Ser  
                   275                     280                     285  
 Lys Leu Thr Phe Asn Gln Leu Leu Thr Arg Phe Ser Ala Tyr Met Val  
                   290                     295                     300  
 Ala Trp Val Val Ser Thr Gly Val Ala Ile Ala Cys Cys Ala Ala Val  
                   305                     310                     315                 320  
 Tyr Tyr Leu Ala Glu Tyr Asn Leu Glu Phe Leu Lys Thr His Ser Asn  
                   325                     330                     335  
 Pro Gly Ala Val Leu Leu Leu Pro Phe Val Val Ser Cys Ile Asn Leu  
                   340                     345                     350  
 Ala Val Pro Cys Ile Tyr Ser Met Phe Arg Leu Val Glu Arg Tyr Glu  
                   355                     360                     365

Met Pro Arg His Glu Val Tyr Val Leu Leu Ile Arg Asn Ile Phe Leu  
 370 375 380  
 Lys Ile Ser Ile Ile Gly Ile Leu Cys Tyr Tyr Trp Leu Asn Thr Val  
 385 390 395 400  
 Ala Leu Ser Gly Glu Glu Cys Trp Gly Thr Leu Ile Gly Gln Asp Ile  
 405 410 415  
 Tyr Arg Leu Leu Leu Met Asp Phe Val Phe Ser Leu Val Asn Ser Phe  
 420 425 430  
 Leu Gly Glu Phe Leu Arg Arg Ile Ile Gly Met Gln Leu Ile Thr Ser  
 435 440 445  
 Leu Gly Leu Gln Glu Phe Asp Ile Ala Arg Asn Val Leu Glu Leu Ile  
 450 455 460  
 Tyr Ala Gln Thr Leu Val Trp Ile Gly Ile Phe Phe Arg Pro Leu Leu  
 465 470 475 480  
 Pro Phe Ile Gln Met Ile Met Leu Phe Ile Met Phe Tyr Ser Lys Asn  
 485 490 495  
 Ile Ser Leu Met Met Asn Phe Gln Pro Pro Ser Lys Ala Trp Arg Ala  
 500 505 510  
 Ser Gln Met Met Thr Phe Phe Ile Phe Leu Leu Phe Phe Pro Ser Phe  
 515 520 525  
 Thr Gly Val Leu Cys Thr Leu Ala Ile Thr Ile Trp Arg Leu Lys Pro  
 530 535 540  
 Ser Ala Asp Cys Gly Pro Phe Arg Gly Leu Pro Leu Phe Ile His Ser  
 545 550 555 560  
 Ile Tyr Ser Trp Ile Asp Thr Leu Ser Thr Arg Pro Gly Tyr Leu Trp  
 565 570 575  
 Val Val Trp Ile Tyr Arg Asn Leu Ile Gly Ser Val His Phe Phe Phe  
 580 585 590  
 Ile Leu Thr Leu Ile Val Leu Ile Ile Thr Tyr Leu Tyr Trp Gln Ile  
 595 600 605  
 Thr Glu Gly Arg Lys Ile Met Ile Arg Leu Leu His Glu Gln Ile Ile  
 610 615 620  
 Asn Glu Gly Lys Asp Lys Met Phe Leu Ile Glu Lys Leu Ile Lys Leu  
 625 630 635 640  
 Gln Asp Met Glu Lys Lys Ala Asn Pro Ser Ser Leu Val Leu Glu Arg  
 645 650 655

Arg Glu Val Glu Gln Gln Gly Phe Cys Ile Trp Gly Asn Met Met Ala			
660	665	670	
Val Leu Thr Cys Asp Leu Glu Asp Gln Phe Lys Lys Ala Ile Gln Gly			
675	680	685	
Pro Asp Asp Ser Phe Gly Asn Gln Thr Pro Ile Lys			
690	695	700	

<210> 4890

<211> 174

<212> PRT

<213> Homo sapiens

<400> 4890

Met Ile Ser Asn Leu Ser Trp Glu Leu Pro Gly Ser Leu Pro Leu Ile			
1	5	10	15
Ser Val Pro Tyr Ser Met His Cys Cys Thr Leu Gly Phe Leu Ser Cys			
20	25	30	
Ser Leu Phe Leu His Met Ser Phe Glu Leu Lys Leu Leu Leu Leu			
35	40	45	
Leu Trp Leu Ala Ala Ser Cys Ser Leu Phe Leu His Ser His Ala Trp			
50	55	60	
Leu Ser Glu Cys Leu Ile Val Arg Leu Tyr Leu Gly Pro Leu Asp Ser			
65	70	75	80
Arg Pro Gly Val Leu Lys Glu Pro Lys Leu Met Gly Ala Ile Ser Phe			
85	90	95	
Phe Ile Phe Phe Phe Thr Leu Leu Val Leu Ala Arg Gln Asn Glu Tyr			
100	105	110	
Tyr Cys Arg Leu Asp Phe Leu Trp Lys Lys Lys Leu Arg Gln Glu Arg			
115	120	125	
Glu Glu Thr Glu Thr Met Glu Asn Leu Thr Arg Leu Leu Glu Asn			
130	135	140	
Val Leu Pro Ala His Val Ala Pro Gln Phe Ile Gly Gln Asn Arg Arg			
145	150	155	160
Asn Glu Ser Pro Val Pro Pro Gly Ser Leu Pro Pro Val Leu			
165	170		

&lt;210&gt; 4891

&lt;211&gt; 546

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4891

Met	Ile	His	Thr	Thr	Glu	Lys	Pro	Tyr	Arg	Cys	Asn	Glu	Ser	Gly	Lys
1															
Ala	Phe	His	Arg	Gly	Ser	Leu	Leu	Thr	Val	His	Gln	Ile	Val	His	Thr
	20							25							30
Arg	Gly	Lys	Pro	Tyr	Gln	Cys	Asp	Val	Cys	Gly	Arg	Ile	Phe	Arg	Gln
	35							40							45
Asn	Ser	Asp	Leu	Val	Asn	His	Arg	Arg	Ser	His	Thr	Gly	Asp	Lys	Pro
	50							55							60
Tyr	Ile	Cys	Asn	Glu	Cys	Gly	Lys	Ser	Phe	Ser	Lys	Ser	Ser	His	Leu
	65							70							80
Ala	Val	His	Gln	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn
	85								90						95
Arg	Cys	Gly	Lys	Cys	Phe	Ser	Gln	Ser	Ser	Ser	Leu	Ala	Thr	His	Gln
	100							105							110
Thr	Val	His	Thr	Gly	Asp	Lys	Pro	Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys
	115							120							125
Thr	Phe	Lys	Arg	Asn	Ser	Ser	Leu	Thr	Ala	His	His	Ile	Ile	His	Ala
	130							135							140
Gly	Lys	Lys	Pro	Tyr	Thr	Cys	Asp	Val	Cys	Gly	Lys	Val	Phe	Tyr	Gln
	145							150							160
Asn	Ser	Gln	Leu	Val	Arg	His	Gln	Ile	Ile	His	Thr	Gly	Glu	Thr	Pro
	165								170						175
Tyr	Lys	Cys	Asn	Glu	Cys	Gly	Lys	Val	Phe	Phe	Gln	Arg	Ser	Arg	Leu
	180							185							190
Ala	Gly	His	Arg	Arg	Ile	His	Thr	Gly	Glu	Lys	Pro	Tyr	Lys	Cys	Asn
	195							200							205
Glu	Cys	Gly	Lys	Val	Phe	Ser	Gln	His	Ser	His	Leu	Ala	Val	His	Gln
	210							215							220

Arg Val His Thr Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys  
 225 230 235 240  
 Ala Phe Asn Trp Gly Ser Leu Leu Thr Val His Gln Arg Ile His Thr  
 245 250 255  
 Gly Glu Lys Pro Tyr Lys Cys Asn Val Cys Gly Lys Val Phe Asn Tyr  
 260 265 270  
 Gly Gly Tyr Leu Ser Val His Met Arg Cys His Thr Gly Glu Lys Pro  
 275 280 285  
 Leu His Cys Asn Lys Cys Gly Met Val Phe Thr Tyr Tyr Ser Cys Leu  
 290 295 300  
 Ala Arg His Gln Arg Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn  
 305 310 315 320  
 Val Cys Gly Lys Val Phe Ile Asp Ser Gly Asn Leu Ser Ile His Arg  
 325 330 335  
 Arg Ser His Thr Gly Glu Lys Pro Phe Gln Cys Asn Glu Cys Gly Lys  
 340 345 350  
 Val Phe Ser Tyr Tyr Ser Cys Leu Ala Arg His Arg Lys Ile His Thr  
 355 360 365  
 Gly Glu Lys Pro Tyr Lys Cys Asn Asp Cys Gly Lys Ala Tyr Thr Gln  
 370 375 380  
 Arg Ser Ser Leu Thr Lys His Leu Val Ile His Thr Gly Glu Asn Pro  
 385 390 395 400  
 Tyr His Cys Asn Glu Phe Gly Glu Ala Phe Ile Gln Ser Ser Lys Leu  
 405 410 415  
 Ala Arg Tyr His Arg Asn Pro Thr Gly Glu Lys Pro His Lys Cys Ser  
 420 425 430  
 Glu Cys Gly Arg Thr Phe Ser His Lys Thr Ser Leu Val Tyr His Gln  
 435 440 445  
 Arg Arg His Thr Gly Glu Met Pro Tyr Lys Cys Ile Glu Cys Gly Lys  
 450 455 460  
 Val Phe Asn Ser Thr Thr Leu Ala Arg His Arg Arg Ile His Thr  
 465 470 475 480  
 Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Val Phe Arg Tyr  
 485 490 495  
 Arg Ser Gly Leu Ala Arg His Trp Ser Ile His Thr Gly Glu Lys Pro  
 500 505 510

Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Arg Val Arg Ser Ile Leu  
 515 520 525  
 Leu Asn His Gln Met Met His Thr Gly Glu Lys Pro Tyr Lys Cys Asn  
 530 535 540  
 Glu Cys  
 545

<210> 4892

<211> 113

<212> PRT

<213> Homo sapiens

<400> 4892

Met Met His Leu Gln Pro Ala Trp Ser Ser Phe Gly Gln Ser Gly Pro  
 1 5 10 15  
 Ile Leu Met Arg Ser Gly Gly Met Gln Leu Leu Leu Pro His Gly  
 20 25 30  
 Ser Val Arg Pro Asn Gln Pro Ala Leu Ser Pro Leu Pro Ala Val Tyr  
 35 40 45  
 Gln Val Ala Leu Glu Arg Gly His Pro Glu Gly Thr Thr Cys Ala Ala  
 50 55 60  
 Val Gly Gly Lys Ile Asn Arg Pro Arg Thr Pro Gly Gln Ala Gly  
 65 70 75 80  
 Ala Thr Glu Glu Val Ser Ser Lys Gly Gly Lys Leu Ser Gly Leu Phe  
 85 90 95  
 Leu Thr Ile Leu Pro Val Pro Arg Pro Trp Thr Ala Gly Gln Pro Gln  
 100 105 110  
 Ser

<210> 4893

<211> 129

<212> PRT

<213> Homo sapiens

&lt;400&gt; 4893

Met	Met	Thr	Asp	Leu	Lys	Gln	Ser	His	Ser	Val	Arg	Leu	Asn	Asp	Gly
1				5					10					15	
Pro	Phe	Met	Pro	Val	Leu	Gly	Phe	Gly	Thr	Tyr	Ala	Pro	Asp	His	Thr
				20				25					30		
Pro	Lys	Ser	Gln	Ala	Ala	Glu	Ala	Thr	Lys	Val	Ala	Ile	Asp	Val	Gly
				35				40					45		
Phe	Arg	His	Ile	Asp	Ser	Ala	Tyr	Leu	Tyr	Gln	Asn	Glu	Glu	Glu	Val
				50				55				60			
Gly	Gln	Ala	Ile	Trp	Glu	Lys	Ile	Ala	Asp	Gly	Thr	Val	Lys	Arg	Glu
				65				70				75		80	
Glu	Ile	Phe	Tyr	Thr	Ile	Lys	Leu	Trp	Ala	Thr	Phe	Phe	Arg	Ala	Glu
				85				90				95			
Leu	Val	His	Pro	Ala	Leu	Glu	Arg	Ser	Leu	Lys	Lys	Leu	Gly	Pro	Asp
				100				105				110			
Tyr	Val	Asp	Leu	Phe	Ile	Ile	His	Val	Pro	Phe	Ala	Met	Lys	Gly	Ser
				115				120				125			
Ser															

&lt;210&gt; 4894

&lt;211&gt; 105

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4894

Met	Cys	Pro	Val	Cys	Gly	Arg	Ala	Leu	Ser	Ser	Pro	Gly	Ser	Leu	Gly
1				5					10				15		
Arg	His	Leu	Leu	Ile	His	Ser	Glu	Asp	Gln	Arg	Ser	Asn	Cys	Ala	Val
				20				25				30			
Cys	Gly	Ala	Arg	Phe	Thr	Ser	His	Ala	Thr	Phe	Asn	Arg	Ser	Ala	Gly
				35				40				45			
His	Leu	Ser	Leu	Leu	Cys	Trp	Glu	Gln	Ile	Thr	Gly	Cys	Glu	Phe	Cys
				50				55				60			

210 4895

211 646

<212> PRT

<213> *Homo sapiens*

4895

Met	Phe	Leu	Ser	Ile	Ser	Thr	Arg	Leu	Pro	Ser	Gln	Tyr	Ile	Tyr	Gly
1	5								10				15		
Phe	Gly	Glu	Thr	Glu	His	Thr	Thr	Phe	Arg	Arg	Asn	Met	Asn	Trp	Asn
		20						25				30			
Thr	Trp	Gly	Met	Phe	Ala	His	Asp	Glu	Pro	Pro	Ala	Tyr	Lys	Lys	Asn
		35					40				45				
Ser	Tyr	Gly	Val	His	Pro	Tyr	Tyr	Met	Ala	Leu	Glu	Glu	Asp	Gly	Ser
		50				55				60					
Ala	His	Gly	Val	Leu	Leu	Leu	Asn	Ser	Asn	Ala	Met	Asp	Val	Thr	Leu
		65				70				75			80		
Gln	Pro	Thr	Pro	Ala	Leu	Thr	Tyr	Arg	Thr	Thr	Gly	Gly	Ile	Leu	Asp
			85				90				95				
Phe	Tyr	Ile	Val	Leu	Gly	Pro	Thr	Pro	Glu	Leu	Val	Thr	Gln	Gln	Tyr
		100				105				110					
Thr	Glu	Leu	Ile	Gly	Arg	Pro	Ala	Met	Ile	Pro	Tyr	Trp	Ala	Leu	Gly
		115				120				125					
Phe	His	Leu	Ser	Arg	Tyr	Gly	Tyr	Gln	Asn	Asp	Ala	Glu	Ile	Ser	Ser
		130			135				140						
Leu	Tyr	Asp	Ala	Met	Val	Ala	Ala	Gln	Ile	Pro	Tyr	Asp	Val	Gln	His
		145			150				155			160			
Val	Asp	Ile	Asp	Tyr	Met	Asn	Arg	Lys	Leu	Asp	Phe	Thr	Leu	Ser	Ala
			165				170				175				

Asn Phe Gln Asn Leu Ser Leu Leu Ile Glu Gln Met Lys Lys Asn Gly  
 180 185 190  
 Met Arg Phe Ile Leu Ile Leu Asp Pro Ala Ile Ser Gly Asn Glu Thr  
 195 200 205  
 Gln Tyr Leu Pro Phe Ile Arg Gly Gln Glu Asn Asn Val Phe Ile Lys  
 210 215 220  
 Trp Pro Asp Thr Asn Asp Ile Val Trp Gly Lys Val Trp Pro Asp Leu  
 225 230 235 240  
 Pro Asn Val Ile Val Asp Gly Ser Leu Asp His Glu Thr Gln Val Lys  
 245 250 255  
 Leu Tyr Arg Ala Tyr Val Ala Phe Pro Asp Phe Phe Arg Asn Ser Thr  
 260 265 270  
 Ala Ala Trp Trp Lys Lys Glu Ile Glu Glu Leu Tyr Ala Asn Pro Arg  
 275 280 285  
 Glu Pro Glu Lys Ser Leu Lys Phe Asp Gly Leu Trp Ile Asp Met Asn  
 290 295 300  
 Glu Pro Ser Asn Phe Val Asp Gly Ser Val Arg Gly Cys Ser Asn Glu  
 305 310 315 320  
 Met Leu Asn Asn Pro Pro Tyr Met Pro Tyr Leu Glu Ser Arg Asp Lys  
 325 330 335  
 Gly Leu Ser Ser Lys Thr Leu Cys Met Glu Ser Gln Gln Ile Leu Pro  
 340 345 350  
 Asp Ser Ser Pro Val Glu His Tyr Asn Val His Asn Leu Tyr Gly Trp  
 355 360 365  
 Ser Gln Thr Arg Pro Thr Tyr Glu Ala Val Gln Glu Val Thr Gly Gln  
 370 375 380  
 Arg Gly Val Ile Ile Thr Arg Ser Thr Phe Pro Ser Ser Gly Arg Trp  
 385 390 395 400  
 Gly Gly His Arg Leu Gly Asn Asn Thr Ala Ala Trp Asp Gln Leu Gly  
 405 410 415  
 Lys Ser Ile Ile Gly Met Met Glu Phe Ser Leu Phe Gly Ile Pro Tyr  
 420 425 430  
 Thr Gly Ala Asp Ile Cys Gly Phe Phe Gly Asp Ala Glu Tyr Glu Met  
 435 440 445  
 Cys Val Arg Trp Met Gln Leu Gly Ala Phe Tyr Pro Phe Ser Arg Asn  
 450 455 460

His Asn Asn Ile Gly Thr Arg Arg Gln Asp Pro Val Ala Trp Asn Ser  
 465 470 475 480  
 Thr Phe Glu Met Leu Ser Arg Lys Val Leu Glu Thr Arg Tyr Thr Leu  
 485 490 495  
 Leu Pro Tyr Leu Tyr Thr Leu Met His Lys Ala His Val Glu Gly Ser  
 500 505 510  
 Thr Val Val Arg Pro Leu Leu His Glu Phe Thr Asp Asp Arg Thr Thr  
 515 520 525  
 Trp Asp Ile Asp Arg Gln Phe Met Leu Gly Pro Ala Ile Leu Ile Ser  
 530 535 540  
 Pro Val Leu Glu Thr Ser Thr Phe Glu Ile Ser Ala Tyr Phe Pro Arg  
 545 550 555 560  
 Ala Arg Trp Tyr Asp Tyr Ser Thr Gly Thr Ser Ser Thr Ser Thr Gly  
 565 570 575  
 Gln Arg Lys Ile Leu Lys Ala Pro Leu Asp His Ile Asn Leu His Val  
 580 585 590  
 Arg Gly Gly Tyr Ile Leu Pro Trp Gln Glu Pro Ala Met Asn Thr His  
 595 600 605  
 Ser Ser Arg Gln Asn Phe Met Gly Leu Ile Val Ala Leu Asp Asp Asn  
 610 615 620  
 Gly Thr Ala Glu Gly Gln Val Phe Trp Asp Asp Gly Gln Ser Ile Val  
 625 630 635 640  
 Phe Asn Thr Thr Ala Met  
 645

<210> 4896

<211> 472

<212> PRT

<213> Homo sapiens

<400> 4896

Met Ala Ser Pro Pro Arg Cys Ser Pro Thr Ala His Asp Arg Glu Cys  
 1 5 10 15  
 Lys Leu Pro Pro Pro Ser Ala Pro Ala Ser Glu Tyr Cys Pro Gly Lys  
 20 25 30

Leu Ser Trp Gly Thr Met Ala Arg Ala Leu Gly Arg Phe Lys Leu Ser  
                  35                 40                 45  
 Ile Pro His Thr His Leu Leu Ala Thr Leu Asp Pro Leu Ala Leu Asp  
                  50                 55                 60  
 Arg Glu Pro Pro Pro His Leu Leu Pro Glu Lys His Gln Val Pro Glu  
                  65                 70                 75                 80  
 Lys Leu Ile Trp Gly Asp Gln Asp Pro Leu Ser Lys Ile Pro Phe Lys  
                  85                 90                 95  
 Ile Leu Ser Gly His Glu His Ala Val Ser Thr Cys His Phe Cys Val  
                  100                 105                 110  
 Asp Asp Thr Lys Leu Leu Ser Gly Ser Tyr Asp Cys Thr Val Lys Leu  
                  115                 120                 125  
 Trp Asp Pro Val Asp Gly Ser Val Val Arg Asp Phe Glu His Arg Pro  
                  130                 135                 140  
 Lys Ala Pro Val Val Glu Cys Ser Ile Thr Gly Asp Ser Ser Arg Val  
                  145                 150                 155                 160  
 Ile Ala Ala Ser Tyr Asp Lys Thr Val Arg Ala Trp Asp Leu Glu Thr  
                  165                 170                 175  
 Gly Lys Leu Leu Trp Lys Val Arg Tyr Asp Thr Phe Ile Val Ser Cys  
                  180                 185                 190  
 Lys Phe Ser Pro Asp Gly Lys Tyr Val Val Ser Gly Phe Asp Val Asp  
                  195                 200                 205  
 His Gly Ile Cys Ile Met Asp Ala Glu Asn Ile Thr Thr Val Ser Val  
                  210                 215                 220  
 Ile Lys Asp His His Thr Arg Ser Ile Thr Ser Cys Cys Phe Asp Pro  
                  225                 230                 235                 240  
 Asp Ser Gln Arg Val Ala Ser Val Ser Leu Asp Arg Cys Ile Lys Ile  
                  245                 250                 255  
 Trp Asp Val Thr Ser Gln Ala Thr Leu Leu Thr Ile Thr Lys Ala His  
                  260                 265                 270  
 Ser Asn Ala Ile Ser Asn Cys Cys Phe Thr Phe Ser Gly His Phe Leu  
                  275                 280                 285  
 Cys Thr Ser Ser Trp Asp Lys Asn Leu Lys Ile Trp Asn Val His Thr  
                  290                 295                 300  
 Gly Glu Phe Arg Asn Arg Gly Ala Cys Val Thr Leu Met Gln Gly His  
                  305                 310                 315                 320

Glu Gly Ser Val Ser Ser Cys His Phe Ala Arg Asp Ser Ser Phe Leu  
                  325                 330                 335  
 Ile Ser Gly Gly Phe Asp Arg Thr Val Ala Ile Trp Asp Val Ala Glu  
                  340                 345                 350  
 Gly Tyr Arg Lys Leu Ser Leu Lys Gly His Asn Asp Trp Val Met Asp  
                  355                 360                 365  
 Val Ala Ile Ser Asn Asn Lys Lys Trp Ile Leu Ser Ala Ser Lys Asp  
                  370                 375                 380  
 Arg Thr Met Arg Leu Trp Asn Ile Glu Glu Ile Asp Glu Ile Pro Leu  
                  385                 390                 395                 400  
 Val Ile Lys Tyr Lys Lys Ala Val Gly Leu Lys Leu Lys Gln Cys Glu  
                  405                 410                 415  
 Arg Cys Asp Arg Pro Phe Ser Ile Phe Lys Ser Asp Thr Ser Ser Glu  
                  420                 425                 430  
 Met Phe Thr Gln Cys Val Phe Cys Arg Ile Asp Thr Arg Gly Leu Pro  
                  435                 440                 445  
 Ala Asp Thr Ser Ser Ser Ser Ser Glu Arg Glu Asn Ser Pro  
                  450                 455                 460  
 Pro Pro Arg Gly Ser Lys Asp Asp  
                  465                 470

<210> 4897

<211> 466

<212> PRT

<213> Homo sapiens

<400> 4897

Met Phe Val Gly Val Ala Arg His Ser Gly Ser Gln Asp Glu Val Ser  
     1                 5                 10                 15  
 Arg Gly Val Glu Pro Leu Asp Ala Ala Arg Ala Gln Pro Ala Lys Asp  
     20                 25                 30  
 Arg Arg Ala Lys Gly Thr Pro Lys Ser Ser Lys Pro Gly Lys Lys His  
     35                 40                 45  
 Arg Tyr Leu Arg Leu Leu Pro Glu Ala Leu Ile Arg Phe Gly Gly Phe  
     50                 55                 60

Arg Lys Arg Lys Lys Ala Lys Ser Ser Val Ser Lys Lys Pro Gly Glu  
 65 70 75 80  
 Val Asp Asp Ser Leu Glu Gln Pro Cys Gly Leu Gly Cys Leu Val Ser  
 85 90 95  
 Thr Cys Cys Glu Cys Cys Asn Asn Ile Arg Cys Phe Met Ile Phe Tyr  
 100 105 110  
 Cys Ile Leu Leu Ile Cys Gln Gly Val Val Phe Gly Leu Ile Asp Val  
 115 120 125  
 Ser Ile Gly Asp Phe Gln Lys Glu Tyr Gln Leu Lys Thr Ile Glu Lys  
 130 135 140  
 Leu Ala Leu Glu Lys Ser Tyr Asp Ile Ser Ser Gly Leu Val Ala Ile  
 145 150 155 160  
 Phe Ile Ala Phe Tyr Gly Asp Arg Lys Lys Val Ile Trp Phe Val Ala  
 165 170 175  
 Ser Ser Phe Leu Ile Gly Leu Gly Ser Leu Leu Cys Ala Phe Pro Ser  
 180 185 190  
 Ile Asn Glu Glu Asn Lys Gln Ser Lys Val Gly Ile Glu Gly Ile Ala  
 195 200 205  
 Glu Cys Thr Ser Met Ile Gly Tyr Ala Leu Gly Tyr Val Leu Gly Ala  
 210 215 220  
 Pro Leu Val Lys Val Pro Glu Asn Thr Thr Ser Ala Thr Lys Thr Gly  
 225 230 235 240  
 Lys Leu Gly Asn Leu Thr Ala Pro Cys Asn Glu Lys Cys Arg Cys Ser  
 245 250 255  
 Ser Ser Ile Tyr Ser Ser Ile Cys Gly Arg Asp Asp Ile Glu Tyr Phe  
 260 265 270  
 Ser Pro Cys Phe Ala Gly Cys Thr Tyr Ser Lys Ala Gln Asn Gln Lys  
 275 280 285  
 Lys Met Tyr Tyr Asn Cys Ser Cys Ile Lys Glu Gly Leu Ile Thr Ala  
 290 295 300  
 Asp Ala Glu Gly Asp Phe Ile Asp Ala Arg Pro Gly Lys Cys Asp Ala  
 305 310 315 320  
 Lys Cys Tyr Lys Leu Pro Leu Phe Ile Ala Phe Ile Phe Ser Thr Leu  
 325 330 335  
 Ile Phe Ser Gly Phe Ser Gly Val Pro Ile Val Leu Ala Met Thr Arg

340	345	350	
Val Val Pro Asp Lys Leu Arg Ser Leu Ala Leu Gly Val Ser Tyr Val			
355	360	365	
Ile Leu Arg Ile Phe Gly Thr Ile Pro Gly Pro Ser Ile Phe Lys Met			
370	375	380	
Ser Gly Glu Thr Ser Cys Ile Leu Arg Asp Val Asn Lys Cys Gly His			
385	390	395	400
Arg Gly Arg Cys Trp Ile Tyr Asn Lys Thr Lys Met Ala Phe Leu Leu			
405	410	415	
Val Gly Ile Cys Phe Leu Cys Lys Leu Cys Thr Ile Ile Phe Thr Thr			
420	425	430	
Ile Ala Phe Phe Ile Tyr Lys Arg Arg Leu Asn Glu Asn Thr Asp Phe			
435	440	445	
Pro Asp Val Thr Val Lys Asn Pro Lys Val Lys Lys Glu Glu Thr			
450	455	460	
Asp Leu			
465			

<210> 4898

<211> 679

<212> PRT

<213> Homo sapiens

<400> 4898

Met Met His Tyr Leu Lys Asn Ile Met Ile Ala Val Val Glu Ser Met			
1	5	10	15
Ile Asn Lys Phe Glu Glu Asp Glu Thr Arg Asn Gln Glu Arg Gln Lys			
20	25	30	
Lys Ile Gln Lys Glu Lys Ser His Ser Tyr Arg Thr Asp Asn Cys Ser			
35	40	45	
Asp Ser Asp Ser Ser Leu Asn Gln Ser Tyr Lys Phe Cys Gln Gly Lys			
50	55	60	
Leu Gln Leu Ile Leu Asp Gln Leu Asp Pro Gly Gln Pro Lys Glu Val			
65	70	75	80
Arg Tyr Glu Ala Leu Gln Thr Leu Cys Ser Ala Pro Pro Ser Asp Val			

85	90	95	
Leu Asn Cys Glu Asn Trp Thr Thr Leu Cys Glu Lys Leu Thr Val Ser			
100	105	110	
Leu Ser Asp Pro Asp Pro Val Phe Ser Asp Arg Ile Leu Lys Phe Cys			
115	120	125	
Ala Gln Thr Phe Leu Leu Ser Pro Leu His Met Thr Lys Glu Ile Tyr			
130	135	140	
Thr Ser Leu Ala Lys Tyr Leu Glu Ser Tyr Phe Leu Ser Arg Glu Asn			
145	150	155	160
His Ile Pro Thr Leu Ser Ala Gly Val Asp Ile Thr Asn Pro Asn Met			
165	170	175	
Thr Arg Leu Leu Lys Lys Val Arg Leu Leu Asn Glu Tyr Gln Lys Glu			
180	185	190	
Ala Pro Ser Phe Trp Ile Arg His Pro Glu Lys Tyr Met Glu Glu Ile			
195	200	205	
Val Glu Ser Thr Leu Ser Leu Leu Thr Val Lys His Asn Gln Ser His			
210	215	220	
Val Val Ser Gln Lys Ile Leu Asp Pro Ile Tyr Phe Phe Ala Leu Val			
225	230	235	240
Asp Thr Lys Ala Val Trp Phe Lys Lys Trp Met His Ala His Tyr Ser			
245	250	255	
Arg Thr Thr Val Leu Arg Leu Leu Glu Lys Lys Tyr Lys Ser Leu Val			
260	265	270	
Thr Thr Ala Ile Gln Gln Cys Val Gln Tyr Phe Glu Met Cys Lys Thr			
275	280	285	
Arg Lys Ala Asp Glu Thr Leu Gly His Ser Lys His Cys Arg Asn Lys			
290	295	300	
Gln Lys Thr Phe Tyr Tyr Leu Gly Gln Glu Leu Gln Tyr Ile Tyr Phe			
305	310	315	320
Ile His Ser Leu Cys Leu Leu Gly Arg Leu Leu Ile Tyr Lys Gln Gly			
325	330	335	
Arg Lys Leu Phe Pro Ile Lys Leu Lys Asn Lys Lys Gly Leu Val Ser			
340	345	350	
Leu Ile Asp Leu Leu Val Leu Phe Thr Gln Leu Ile Tyr Tyr Ser Pro			
355	360	365	

Ser Cys Pro Lys Met Thr Ser Ala Ala His Ser Glu Asn Tyr Ser Pro  
 370 375 380  
 Ala Ser Met Val Thr Glu Val Leu Trp Ile Leu Ser Asp Gln Lys Glu  
 385 390 395 400  
 Cys Ala Val Glu Cys Leu Tyr Asn Asn Ile Val Ile Glu Thr Leu Leu  
 405 410 415  
 Gln Pro Ile His Asn Leu Met Lys Gly Asn Glu Ala Ser Pro Asn Cys  
 420 425 430  
 Ser Glu Thr Ala Leu Ile His Ile Ala Gly Ile Leu Ala Arg Ile Ala  
 435 440 445  
 Ser Val Glu Glu Gly Leu Ile Leu Leu Leu Tyr Gly Ala Asn Met Asn  
 450 455 460  
 Ser Ser Glu Glu Ser Pro Thr Gly Ala His Ile Ile Ala Gln Phe Ser  
 465 470 475 480  
 Lys Lys Leu Leu Asp Glu Asp Ile Ser Ile Phe Ser Gly Ser Glu Met  
 485 490 495  
 Leu Pro Val Val Lys Gly Ala Phe Ile Ser Val Cys Arg His Ile Tyr  
 500 505 510  
 Ser Thr Cys Glu Gly Leu Gln Val Leu Ile Thr Tyr Asn Leu His Glu  
 515 520 525  
 Ser Ile Ala Lys Ala Trp Lys Lys Thr Ser Leu Leu Ser Glu Arg Ile  
 530 535 540  
 Pro Thr Pro Val Glu Gly Ser Asp Ser Val Ser Ser Val Ser Gln Glu  
 545 550 555 560  
 Ser Gln Asn Ile Met Ala Trp Glu Asp Asn Leu Leu Asp Asp Leu Leu  
 565 570 575  
 His Phe Ala Ala Thr Pro Lys Gly Leu Leu Leu Gln Arg Thr Gly  
 580 585 590  
 Ala Ile Asn Glu Cys Val Thr Phe Ile Phe Asn Arg Tyr Ala Lys Lys  
 595 600 605  
 Leu Gln Val Ser Arg His Lys Lys Phe Gly Tyr Gly Val Leu Val Thr  
 610 615 620  
 Arg Val Ala Ser Thr Ala Ala Gly Gly Ile Ala Leu Lys Lys Ser Gly  
 625 630 635 640  
 Phe Ile Asn Glu Leu Ile Thr Glu Leu Trp Ser Asn Leu Glu Tyr Gly  
 645 650 655

Arg Asp Asp Val Arg Val Thr His Pro Arg Thr Thr Pro Val Asp Pro  
 660 665 670  
 Ile Asp Arg Ser Cys Gln Lys  
 675

<210> 4899

<211> 1148

<212> PRT

<213> Homo sapiens

<400> 4899

Met Val Leu Asn Leu Tyr Gln Leu Asn Gln Leu Asp Cys Pro Gly Gly  
 1 5 10 15  
 Arg Leu Ile Gly Gly Trp Glu Asp Asn Pro Phe Lys Gly Asp Leu Lys  
 20 25 30  
 Ile Val Leu Arg Gly Asn His Thr Thr Gln Asp Trp Ala Leu Pro Glu  
 35 40 45  
 Gly Pro Asn Gln Gly Ala Lys Val Leu Gly Val Phe Gly Glu Leu Asp  
 50 55 60  
 Leu His Gly Ile Pro His Ser Ile Tyr Lys Thr Lys Leu Ser Glu Thr  
 65 70 75 80  
 Ala Phe Ala Gly Ser Lys Val Leu Ser Leu Met Asp Ala Val Asp Trp  
 85 90 95  
 Gln Glu Gly Glu Glu Ile Val Ile Thr Thr Ser Tyr Asp Phe His  
 100 105 110  
 Gln Thr Glu Thr Arg Ser Ile Val Lys Ile Leu His Asp His Lys Ile  
 115 120 125  
 Leu Ile Leu Asn Asp Ser Leu Ser Tyr Thr His Phe Ala Glu Lys Tyr  
 130 135 140  
 His Val Pro Gly Thr Gly Glu Ser Tyr Thr Leu Ala Ala Asp Val Gly  
 145 150 155 160  
 Ile Leu Ser Arg Asn Ile Lys Ile Val Gly Glu Asp Tyr Pro Gly Trp  
 165 170 175  
 Ser Glu Asp Ser Phe Gly Ala Arg Val Leu Val Gly Ser Phe Thr Glu  
 180 185 190

Asn Met Met Thr Phe Lys Gly Asn Ala Arg Ile Ser Asn Val Glu Phe  
 195 200 205  
 Tyr His Ser Gly Gln Glu Gly Phe Arg Asp Ser Thr Asp Pro Arg Tyr  
 210 215 220  
 Ala Val Thr Phe Leu Asn Leu Gly Gln Ile Gln Glu His Gly Ser Ser  
 225 230 235 240  
 Tyr Ile Arg Gly Cys Ala Phe His His Gly Phe Ser Pro Ala Ile Gly  
 245 250 255  
 Val Phe Gly Thr Asp Gly Leu Asp Ile Asp Asp Asn Ile Ile His Phe  
 260 265 270  
 Thr Val Gly Glu Gly Ile Arg Ile Trp Gly Asn Ala Asn Arg Val Arg  
 275 280 285  
 Gly Asn Leu Ile Ala Leu Ser Val Trp Pro Gly Thr Tyr Gln Asn Arg  
 290 295 300  
 Lys Asp Leu Ser Ser Thr Leu Trp His Ala Ala Ile Glu Ile Asn Arg  
 305 310 315 320  
 Gly Thr Asn Thr Val Leu Gln Asn Asn Val Val Ala Gly Phe Gly Arg  
 325 330 335  
 Ala Gly Tyr Arg Ile Asp Gly Glu Pro Cys Pro Gly Gln Phe Asn Pro  
 340 345 350  
 Val Glu Lys Trp Phe Asp Asn Glu Ala His Gly Gly Leu Tyr Gly Ile  
 355 360 365  
 Tyr Met Asn Gln Asp Gly Leu Pro Gly Cys Ser Leu Ile Gln Gly Phe  
 370 375 380  
 Thr Ile Trp Thr Cys Trp Asp Tyr Gly Ile Tyr Phe Gln Thr Thr Glu  
 385 390 395 400  
 Ser Val His Ile Tyr Asn Val Thr Leu Val Asp Asn Gly Met Ala Ile  
 405 410 415  
 Phe Pro Met Ile Tyr Met Pro Ala Ala Ile Ser His Lys Ile Ser Ser  
 420 425 430  
 Lys Asn Val Gln Ile Lys Ser Ser Leu Ile Val Gly Ser Ser Pro Gly  
 435 440 445  
 Phe Asn Cys Ser Asp Val Leu Thr Asn Asp Asp Pro Asn Ile Glu Leu  
 450 455 460  
 Thr Ala Ala His Arg Ser Pro Arg Ser Pro Ser Gly Gly Arg Ser Gly  
 465 470 475 480

Ile Arg Trp Pro Thr Phe Ala Ser Ala His Asn Met Ala Pro Arg Lys  
                   485                  490                  495  
 Pro His Ala Gly Ile Met Ser Tyr Asn Ala Ile Ser Gly Leu Leu Asp  
                   500                  505                  510  
 Ile Ser Gly Ser Thr Phe Val Gly Phe Lys Asn Val Cys Ser Gly Glu  
                   515                  520                  525  
 Thr Asn Val Ile Phe Ile Thr Asn Pro Leu Asn Glu Asp Leu Gln His  
                   530                  535                  540  
 Pro Ile His Val Lys Asn Ile Lys Leu Val Asp Thr Thr Glu Gln Ser  
                   545                  550                  555                  560  
 Lys Ile Phe Ile His Arg Pro Asp Ile Ser Lys Val Asn Pro Ser Asp  
                   565                  570                  575  
 Cys Val Asp Met Val Cys Asp Ala Lys Arg Lys Ser Phe Leu Arg Asp  
                   580                  585                  590  
 Ile Asp Gly Ser Phe Leu Gly Asn Ala Gly Ser Val Ile Pro Gln Ala  
                   595                  600                  605  
 Glu Tyr Glu Trp Asp Gly Asn Ser Gln Val Gly Ile Gly Asp Tyr Arg  
                   610                  615                  620  
 Ile Pro Lys Ala Met Leu Thr Phe Leu Asn Gly Ser Arg Ile Pro Val  
                   625                  630                  635                  640  
 Thr Glu Lys Ala Pro His Lys Gly Ile Ile Arg Asp Ser Thr Cys Lys  
                   645                  650                  655  
 Tyr Leu Pro Glu Trp Gln Ser Tyr Gln Cys Phe Gly Met Glu Tyr Ala  
                   660                  665                  670  
 Met Met Val Ile Glu Ser Leu Asp Pro Asp Thr Glu Thr Arg Arg Leu  
                   675                  680                  685  
 Ser Pro Val Ala Ile Met Gly Asn Gly Tyr Val Asp Leu Ile Asn Gly  
                   690                  695                  700  
 Pro Gln Asp His Gly Trp Cys Ala Gly Tyr Thr Cys Gln Arg Arg Leu  
                   705                  710                  715                  720  
 Ser Leu Phe His Ser Ile Val Ala Leu Asn Lys Ser Tyr Glu Val Tyr  
                   725                  730                  735  
 Phe Thr Gly Thr Ser Pro Gln Asn Leu Arg Leu Met Leu Leu Asn Val  
                   740                  745                  750  
 Asp His Asn Lys Ala Val Leu Val Gly Ile Phe Phe Ser Thr Leu Gln  
                   755                  760                  765

Arg Leu Asp Val Tyr Val Asn Asn Leu Leu Val Cys Pro Lys Thr Thr  
 770 775 780  
 Ile Trp Asn Ala Gln Gln Lys His Cys Glu Leu Asn Asn His Leu Tyr  
 785 790 795 800  
 Lys Asp Gln Phe Leu Pro Asn Leu Asp Ser Thr Val Leu Gly Glu Asn  
 805 810 815  
 Tyr Phe Asp Gly Thr Tyr Gln Met Leu Tyr Leu Leu Val Lys Gly Thr  
 820 825 830  
 Ile Pro Val Glu Ile His Thr Ala Thr Val Ile Phe Val Ser Phe Gln  
 835 840 845  
 Leu Ser Val Ala Thr Glu Asp Asp Phe Tyr Thr Ser His Asn Leu Val  
 850 855 860  
 Lys Asn Leu Ala Leu Phe Leu Lys Ile Pro Ser Asp Lys Ile Arg Ile  
 865 870 875 880  
 Ser Lys Ile Arg Gly Lys Ser Leu Arg Arg Lys Arg Ser Met Gly Phe  
 885 890 895  
 Ile Ile Glu Ile Glu Ile Gly Asp Pro Pro Ile Gln Phe Ile Ser Asn  
 900 905 910  
 Gly Thr Thr Gly Gln Met Gln Leu Ser Glu Leu Gln Glu Ile Ala Gly  
 915 920 925  
 Ser Leu Gly Gln Ala Val Ile Leu Gly Asn Ile Ser Ser Ile Leu Gly  
 930 935 940  
 Phe Asn Ile Ser Ser Met Ser Ile Thr Asn Pro Leu Pro Ser Pro Ser  
 945 950 955 960  
 Asp Ser Gly Trp Ile Lys Val Thr Ala Gln Pro Val Glu Arg Ser Ala  
 965 970 975  
 Phe Pro Val His His Val Ala Phe Val Ser Ser Leu Leu Val Ile Thr  
 980 985 990  
 Gln Pro Val Ala Ala Gln Pro Gly Gln Pro Phe Pro Gln Gln Pro Ser  
 995 1000 1005  
 Val Lys Ala Thr Asp Ser Asp Gly Asn Cys Val Ser Val Gly Ile Thr  
 1010 1015 1020  
 Ala Leu Thr Leu Arg Ala Ile Leu Lys Asp Ser Asn Asn Asn Gln Val  
 1025 1030 1035 1040  
 Asn Gly Leu Ser Gly Asn Thr Thr Ile Pro Phe Ser Ser Cys Trp Ala  
 1045 1050 1055

Asn Tyr Thr Asp Leu Thr Pro Leu Arg Thr Gly Lys Asn Tyr Lys Ile  
 1060 1065 1070  
 Glu Phe Ile Leu Asp Asn Val Val Gly Val Glu Ser Arg Thr Phe Ser  
 1075 1080 1085  
 Leu Leu Ala Glu Ser Val Ser Ser Ser Gly Ser Ser Ser Ser Asn  
 1090 1095 1100  
 Ser Lys Ala Ser Thr Val Gly Thr Tyr Ala Gln Ile Met Thr Val Val  
 1105 1110 1115 1120  
 Ile Ser Cys Leu Val Gly Arg Met Trp Leu Leu Glu Ile Phe Met Ala  
 1125 1130 1135  
 Ala Val Ser Thr Leu Asn Ile Thr Leu Arg Ser Tyr  
 1140 1145

<210> 4900

<211> 300

<212> PRT

<213> Homo sapiens

<400> 4900

Met His Ser Leu Lys Lys Val Thr Phe Glu Asp Val Ala Ile Asp Phe  
 1 5 10 15  
 Thr Gln Glu Glu Trp Ala Met Met Asp Thr Ser Lys Arg Lys Leu Tyr  
 20 25 30  
 Arg Asp Val Met Leu Glu Asn Ile Ser His Leu Val Ser Leu Gly Tyr  
 35 40 45  
 Gln Ile Ser Lys Ser Tyr Ile Ile Leu Gln Leu Glu Gln Gly Lys Glu  
 50 55 60  
 Leu Trp Arg Glu Gly Arg Glu Phe Leu Gln Asp Gln Asn Pro Asp Arg  
 65 70 75 80  
 Glu Ser Ala Leu Lys Lys His Met Ile Ser Met His Pro Ile Thr  
 85 90 95  
 Arg Lys Asp Ala Ser Thr Ser Met Thr Met Glu Asn Ser Leu Ile Leu  
 100 105 110  
 Glu Asp Pro Phe Glu Cys Asn Asp Ser Gly Glu Asp Cys Thr His Ser  
 115 120 125

Ser Thr Ile Thr Gln Arg Leu Leu Thr His Ser Gly Lys Lys Pro Tyr  
 130 135 140  
 Val Ser Lys Gln Cys Gly Lys Ser Leu Arg Asn Leu Phe Ser Pro Lys  
 145 150 155 160  
 Pro His Lys Gln Ile His Thr Lys Gly Lys Ser Tyr Gln Cys Asn Leu  
 165 170 175  
 Cys Glu Lys Ala Tyr Thr Asn Cys Phe Arg Leu Arg Arg His Lys Met  
 180 185 190  
 Thr His Thr Gly Glu Arg Pro Tyr Ala Cys His Leu Cys Gly Lys Ala  
 195 200 205  
 Phe Thr Gln Cys Ser His Leu Arg Arg His Glu Lys Thr His Thr Gly  
 210 215 220  
 Glu Arg Pro Tyr Lys Cys His Gln Cys Gly Lys Ala Phe Ile Gln Ser  
 225 230 235 240  
 Phe Asn Leu Arg Arg His Glu Arg Thr His Leu Gly Lys Cys Tyr  
 245 250 255  
 Glu Cys Asp Lys Ser Gly Lys Ala Phe Ser Gln Ser Ser Gly Phe Arg  
 260 265 270  
 Gly Asn Lys Ile Ile His Thr Gly Glu Lys Pro His Ala Cys Leu Leu  
 275 280 285  
 Cys Gly Lys Ala Phe Ser Leu Ser Ser Asp Leu Arg  
 290 295 300

<210> 4901

<211> 1216

<212> PRT

<213> Homo sapiens

<400> 4901

Met Ser Gln Ala Gly Asp Val Glu Gly Pro Ser Thr Gly Asp Pro Val  
 1 5 10 15  
 Leu Ser Pro Gln His Asn Cys Glu Leu Leu Gln Asn Met Glu Gly Ala  
 20 25 30  
 Ser Ser Met Pro Gly Leu Ser Pro Asp Gly Pro Gly Ala Ser Ser Gly  
 35 40 45

Pro Gly Val Arg Ala Gly Ser Arg Arg Lys Ile Pro Arg Lys Glu Ala  
 50 55 60  
 Leu Arg Gly Gly Ser Ser Arg Ala Ala Gly Ala Ala Glu Val Arg Pro  
 65 70 75 80  
 Gly Val Leu Glu Leu Leu Ala Val Val Gln Ser Arg Gly Ser Met Leu  
 85 90 95  
 Ala Pro Gly Leu His Met Gln Leu Pro Ser Val Pro Thr Gln Gly Arg  
 100 105 110  
 Ala Leu Thr Ser Lys Arg Leu Gln Val Ser Leu Cys Asp Ile Leu Asp  
 115 120 125  
 Asp Ser Cys Pro Arg Lys Leu Cys Ser Arg Ser Ala Gly Leu Pro Glu  
 130 135 140  
 Arg Ala Leu Ala Cys Arg Glu Arg Leu Ala Gly Val Glu Glu Val Ser  
 145 150 155 160  
 Cys Leu Arg Pro Arg Glu Ala Arg Asp Gly Gly Met Ser Ser Pro Gly  
 165 170 175  
 Cys Asp Arg Arg Ser Pro Thr Leu Ser Lys Glu Glu Pro Pro Gly Arg  
 180 185 190  
 Pro Leu Thr Ser Ser Pro Asp Pro Val Pro Val Arg Val Arg Lys Lys  
 195 200 205  
 Trp Arg Arg Gln Gly Ala His Ser Glu Cys Glu Glu Gly Ala Gly Asp  
 210 215 220  
 Phe Leu Trp Leu Asp Gln Ser Pro Arg Gly Asp Asn Leu Leu Ser Val  
 225 230 235 240  
 Gly Asp Pro Pro Gln Val Ala Asp Leu Glu Ser Leu Gly Gly Pro Cys  
 245 250 255  
 Arg Pro Pro Ser Pro Lys Asp Thr Gly Ser Gly Pro Gly Glu Pro Gly  
 260 265 270  
 Gly Ser Gly Ala Gly Cys Ala Ser Gly Thr Glu Lys Phe Gly Tyr Leu  
 275 280 285  
 Pro Ala Thr Gly Asp Gly Pro Gln Pro Gly Ser Pro Cys Gly Pro Val  
 290 295 300  
 Gly Phe Pro Val Pro Ser Gly Gly Glu Ser Leu Ser Ser Ala Ala Gln  
 305 310 315 320  
 Ala Pro Pro Gln Ser Ala Ala Leu Cys Leu Gly Ala Ser Ala Gln Ala  
 325 330 335

Ser Ala Glu Gln Gln Glu Ala Val Cys Val Val Arg Thr Gly Ser Asp  
                  340                 345                 350  
 Glu Gly Gln Ala Pro Ala Gln Asp Gln Glu Glu Leu Glu Ala Lys Ala  
                  355                 360                 365  
 Gln Pro Ala Ser Arg Gly Arg Leu Glu Gln Gly Leu Ala Ala Pro Ala  
                  370                 375                 380  
 Asp Thr Cys Ala Ser Ser Arg Glu Pro Leu Gly Gly Leu Ser Ser Ser  
                  385                 390                 395                 400  
 Leu Asp Thr Glu Ala Ser Arg Ala Cys Ser Gly Pro Phe Met Glu Gln  
                  405                 410                 415  
 Arg Arg Ser Lys Gly Thr Lys Asn Leu Lys Lys Gly Pro Val Pro Cys  
                  420                 425                 430  
 Ala Gln Asp Arg Gly Thr Asp Arg Ser Ser Asp Asn Ser His Gln Asp  
                  435                 440                 445  
 Arg Pro Glu Glu Pro Ser Pro Gly Gly Cys Pro Arg Leu Glu Glu Val  
                  450                 455                 460  
 Lys Ile Pro His Gly Val Lys Leu Val Cys Tyr Leu Gly Ser Gly Pro  
                  465                 470                 475                 480  
 Val Ile Gln Leu Leu Gly Ala Ile Ser His Gly Gln Ala Gly Gly Gln  
                  485                 490                 495  
 Leu Pro Pro Lys Leu Glu Val Leu Glu Asp Leu Met Glu Val Ser Ser  
                  500                 505                 510  
 Pro Ser Pro Ala Gln Arg Leu Arg Arg Lys Lys Arg Pro Met Val Gln  
                  515                 520                 525  
 Gly Pro Ala Gly Cys Gln Val Phe Gln Pro Ser Pro Ser Gly Gly Thr  
                  530                 535                 540  
 Ala Gly Asp Pro Gly Gly Leu Ser Asp Pro Phe Tyr Pro Pro Arg Ser  
                  545                 550                 555                 560  
 Gly Ser Leu Ala Leu Gly Asp Pro Ser Ser Asp Pro Ala Cys Ser Gln  
                  565                 570                 575  
 Ser Gly Pro Met Glu Ala Glu Glu Asp Ser Leu Pro Glu Gln Pro Glu  
                  580                 585                 590  
 Asp Ser Ala Gln Leu Gln Gln Glu Lys Pro Ser Leu Tyr Ile Gly Val  
                  595                 600                 605  
 Arg Gly Thr Val Val Arg Ser Met Gln Glu Val Leu Trp Thr Arg Leu

610	615	620
Arg Glu Leu Pro Asp Pro Val Leu Ser Glu Glu Val Val Glu Gly Ile		
625	630	635
Ala Ala Gly Ile Glu Ala Ala Leu Trp Asp Leu Thr Gln Gly Thr Asn		
645	650	655
Gly Arg Tyr Lys Thr Lys Tyr Arg Ser Leu Leu Phe Asn Leu Arg Asp		
660	665	670
Pro Arg Asn Leu Asp Leu Phe Leu Lys Val Val His Gly Asp Val Thr		
675	680	685
Pro Tyr Asp Leu Val Arg Met Ser Ser Met Gln Leu Ala Pro Gln Glu		
690	695	700
Leu Ala Arg Trp Arg Asp Gln Glu Glu Lys Arg Gly Leu Asn Ile Ile		
705	710	715
Glu Gln Gln Gln Lys Glu Pro Cys Arg Leu Pro Ala Ser Lys Met Thr		
725	730	735
His Lys Gly Glu Val Glu Ile Gln Arg Asp Met Asp Gln Thr Leu Thr		
740	745	750
Leu Glu Asp Leu Val Gly Pro Gln Met Phe Met Asp Cys Ser Pro Gln		
755	760	765
Ala Leu Pro Ile Ala Ser Glu Asp Thr Thr Gly Gln His Asp His His		
770	775	780
Phe Leu Asp Pro Asn Cys His Ile Cys Lys Asp Trp Glu Pro Ser Asn		
785	790	795
Glu Leu Leu Gly Ser Phe Glu Ala Ala Lys Ser Cys Gly Asp Asn Ile		
805	810	815
Phe Gln Lys Ala Leu Ser Gln Thr Pro Met Pro Ala Pro Glu Met Pro		
820	825	830
Lys Thr Arg Glu Leu Ser Pro Thr Glu Pro Gln Asp Arg Val Pro Pro		
835	840	845
Ser Gly Leu His Val Pro Ala Ala Pro Thr Lys Ala Leu Pro Cys Leu		
850	855	860
Pro Pro Trp Glu Gly Val Leu Asp Met Phe Ser Ile Lys Arg Phe Arg		
865	870	875
Ala Arg Ala Gln Leu Val Ser Gly His Ser Cys Arg Leu Val Gln Ala		
885	890	895
Leu Pro Thr Val Ile Arg Ser Ala Gly Cys Ile Pro Ser Asn Ile Val		

900	905	910
Trp Asp Leu Leu Ala Ser Ile Cys Pro Ala Lys Ala Lys Asp Val Cys		
915	920	925
Val Val Arg Leu Cys Pro His Gly Ala Arg Asp Thr Gln Asn Cys Arg		
930	935	940
Leu Leu Tyr Ser Tyr Leu Asn Asp Arg Gln Arg His Gly Leu Ala Ser		
945	950	955
Val Glu His Met Gly Met Val Leu Leu Pro Leu Pro Ala Phe Gln Pro		960
965	970	975
Leu Pro Thr Arg Leu Arg Pro Leu Gly Gly Pro Gly Leu Trp Ala Leu		
980	985	990
Pro Val Ser Pro Leu Leu Ser Pro Gly Leu Glu Val Thr His Ser Ser		
995	1000	1005
Leu Leu Leu Ala Val Leu Leu Pro Lys Glu Gly Leu Pro Asp Thr Ala		
1010	1015	1020
Gly Ser Ser Pro Trp Leu Gly Lys Val Gln Lys Met Val Ser Phe Asn		
1025	1030	1035
Ser Lys Val Glu Lys Arg Tyr Tyr Gln Pro Asp Asp Arg Arg Pro Asn		1040
1045	1050	1055
Val Pro Leu Lys Gly Thr Pro Pro Pro Gly Ala Trp Gln Gln Ser		
1060	1065	1070
Gln Gly Arg Gly Ser Ile Ala Pro Arg Gly Ile Ser Ala Trp Gln Arg		
1075	1080	1085
Pro Pro Arg Gly Arg Gly Arg Leu Trp Pro Glu Pro Glu Asn Trp Gln		
1090	1095	1100
His Pro Gly Arg Gly Gln Trp Pro Pro Glu Pro Gly Leu Arg Gln Ser		
1105	1110	1115
Gln His Pro Tyr Ser Val Ala Pro Ala Gly His Gly Phe Gly Arg Gly		1120
1125	1130	1135
Gln His Phe His Arg Asp Ser Cys Pro His Gln Ala Leu Leu Arg His		
1140	1145	1150
Leu Glu Ser Leu Ala Thr Met Ser His Gln Leu Gln Ala Leu Leu Cys		
1155	1160	1165
Pro Gln Thr Lys Ser Ser Ile Pro Arg Pro Leu Gln Arg Leu Ser Ser		
1170	1175	1180
Ala Leu Ala Ala Pro Glu Pro Pro Gly Pro Ala Arg Asp Ser Ser Leu		

1185	1190	1195	1200
Gly Pro Thr Asp Glu Ala Gly Ser Glu Cys Pro Phe Pro Arg Lys Ala			
1205	1210	1215	
<210> 4902			
<211> 435			
<212> PRT			
<213> <i>Homo sapiens</i>			
<400> 4902			
Met Arg Lys Leu Leu Thr Asn Leu Pro Ala Ala Ala Val Leu Ser Ala			
1	5	10	15
Gln Val Tyr Ser Ala Val Leu Arg Gly Leu Trp Glu Glu Asn Val Cys			
20	25	30	
Gly Thr Pro Gly Arg Thr Arg Val Cys Thr Ala Leu Leu Tyr Gly Gln			
35	40	45	
Val Cys Pro Phe Gln Asp Ser Thr Asp Gly Leu Arg Thr Ile Thr Ser			
50	55	60	
Ile Leu Phe Asn Trp Pro Pro Glu Asn Thr Ser Val Tyr Tyr Gln Pro			
65	70	75	80
Pro Gln Arg Ser Ser Phe Arg Ile Lys Leu Ala Phe Arg Asn Leu Ser			
85	90	95	
Trp Pro Gly Leu Gly Leu Glu Asp His Gln Glu Ile Val Leu Gly Gln			
100	105	110	
Leu Val Leu Pro Glu Pro Asn Glu Ala Lys Pro Asp Asp Pro Ala Pro			
115	120	125	
Arg Pro Gly Gln His Ala Leu Thr Met Pro Ala Leu Glu Pro Ala Pro			
130	135	140	
Pro Leu Leu Ala Asp Leu Gly Pro Ala Leu Glu Pro Glu Ser Pro Ala			
145	150	155	160
Ala Leu Gly Pro Pro Gly Tyr Leu His Ser Ala Pro Gly Pro Ala Pro			
165	170	175	
Ala Pro Gly Glu Glu Pro Pro Gly Thr Val Leu Glu Pro Gln Ser			
180	185	190	
Ala Pro Glu Ser Ser Cys Pro Cys Arg Gly Ser Val Lys Asn Gln Pro			

195	200	205
Ser Glu Glu Leu Pro Asp Met Thr Thr Phe Pro Pro Arg Leu Leu Ala		
210	215	220
Glu Gln Leu Thr Leu Met Asp Ala Glu Leu Phe Lys Lys Val Val Leu		
225	230	235
Tyr Glu Cys Leu Gly Cys Ile Trp Gly Gln Gly His Leu Lys Gly Asn		
245	250	255
Glu His Met Ala Pro Thr Val Arg Ala Thr Ile Ala His Phe Asn Arg		
260	265	270
Leu Thr Asn Cys Ile Thr Thr Ser Cys Leu Gly Asp His Ser Met Arg		
275	280	285
Ala Arg Asp Arg Ala Arg Val Val Glu His Trp Ile Lys Val Ala Arg		
290	295	300
Glu Cys Leu Ser Leu Asn Asn Phe Ser Ser Val His Val Ile Val Ser		
305	310	315
Ala Leu Cys Ser Asn Pro Ile Gly Gln Leu His Lys Thr Trp Ala Gly		
325	330	335
Val Ser Ser Lys Ser Met Lys Glu Leu Lys Glu Leu Cys Lys Lys Asp		
340	345	350
Thr Ala Val Lys Arg Asp Leu Leu Ile Lys Arg Asp Asp Gly Glu Asn		
355	360	365
Asn Gly Asn Ser Tyr Arg Lys Leu Ser Pro Gln Arg Pro Cys Glu Val		
370	375	380
Ala Val Val Cys Ile Thr Leu Tyr Arg Arg Gly Asn Ser Leu Arg Glu		
385	390	395
Ala Arg Leu Gln Asp Trp Val Thr His Thr Gly Ser Val Asp Leu Gly		
405	410	415
Gln Trp Arg Gly Ala Leu Arg Trp Pro Pro Arg Arg Gly Thr Pro Arg		
420	425	430
Glu Pro Arg		
435		

&lt;210&gt; 4903

&lt;211&gt; 171

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4903

Met	Gly	Lys	Ser	Glu	Ile	Lys	Arg	Thr	Gly	Gly	Phe	Gly	Ser	Thr	Asn
1					5				10					15	
Lys	Gln	Gly	Lys	Ala	Ala	Tyr	Trp	Val	Asn	Gln	Ile	Thr	Asp	Lys	Cys
					20				25				30		
Pro	Thr	Cys	Glu	Ile	Thr	Ile	Gln	Gly	Lys	Lys	Phe	Lys	Gly	Leu	Val
					35				40				45		
Asp	Thr	Arg	Ala	Asp	Ile	Ser	Ile	Ile	Ser	Leu	Gln	His	Trp	Pro	Ser
					50				55			60			
Thr	Trp	Pro	Ile	Gln	Pro	Thr	Gln	Phe	Asn	Ile	Val	Gly	Val	Gly	Glu
					65				70			75		80	
Ala	Pro	Glu	Val	Tyr	Gln	Ser	Ser	Val	Leu	Pro	Cys	Glu	Gly	Pro	
					85				90			95			
Asp	Gly	Gln	Pro	Glu	Thr	Ile	Gln	Pro	Ile	Ile	Thr	Ser	Val	Ser	Ile
					100				105			110			
Asn	Leu	Trp	Gly	Arg	Asp	Leu	Leu	Gln	Gln	Cys	Arg	Ala	Gln	Val	Leu
					115				120			125			
Ile	Pro	Glu	Gln	Leu	Tyr	Ser	Pro	Gln	Ser	Gln	His	Met	Met	His	Glu
					130				135			140			
Met	Gly	Tyr	Val	Pro	Gly	Met	Gly	Leu	Gln	Lys	Asn	Leu	Gln	Gly	Leu
					145				150			155		160	
Lys	Ser	Ser	Arg	Gln	Arg	Leu	Gly	Asn	Asn	Phe					
					165				170						

&lt;210&gt; 4904

&lt;211&gt; 599

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4904

Met	Asp	Pro	Pro	Met	Asp	Asp	Gln	Pro	Gly	Glu	Lys	Glu	Leu	Val	Lys
1								5					10		15
Arg	Ser	Gln	Leu	Asp	Gly	Glu	Gly	Asp	Gly	Pro	Leu	Ser	Asn	Gln	Leu

20	25	30	
Ser Ala Ser Ser Thr Ile Asn Pro Val Pro Leu Val Gly Leu Gln Lys			
35	40	45	
Pro Glu Met Ser Leu Pro Val Lys Pro Gly Gln Gly Asp Ser Glu Ala			
50	55	60	
Ser Ser Pro Phe Thr Pro Val Ala Asp Glu Asp Ser Val Val Phe Ser			
65	70	75	80
Lys Leu Thr Tyr Leu Gly Cys Ala Ser Val Asn Ala Pro Arg Ser Glu			
85	90	95	
Val Glu Ala Leu Arg Met Met Ser Ile Leu Arg Ser Gln Cys Gln Ile			
100	105	110	
Ser Leu Asp Val Thr Leu Ser Val Pro Asn Val Ser Glu Gly Ile Val			
115	120	125	
Arg Leu Leu Asp Pro Gln Thr Asn Thr Glu Ile Ala Asn Tyr Pro Ile			
130	135	140	
Tyr Lys Ile Leu Phe Cys Val Arg Gly His Asp Gly Thr Pro Glu Ser			
145	150	155	160
Asp Cys Phe Ala Phe Thr Glu Ser His Tyr Asn Ala Glu Leu Phe Arg			
165	170	175	
Ile His Val Phe Arg Cys Glu Ile Gln Glu Ala Val Ser Arg Ile Leu			
180	185	190	
Tyr Ser Phe Ala Thr Ala Phe Arg Arg Ser Ala Lys Gln Thr Pro Leu			
195	200	205	
Ser Ala Thr Ala Ala Pro Gln Thr Pro Asp Ser Asp Ile Phe Thr Phe			
210	215	220	
Ser Val Ser Leu Glu Ile Lys Glu Asp Asp Gly Lys Gly Tyr Phe Ser			
225	230	235	240
Ala Val Pro Lys Asp Lys Asp Arg Gln Cys Phe Lys Leu Arg Gln Gly			
245	250	255	
Ile Asp Lys Lys Ile Val Ile Tyr Val Gln Gln Thr Thr Asn Lys Glu			
260	265	270	
Leu Ala Ile Glu Arg Cys Phe Gly Leu Leu Leu Ser Pro Gly Lys Asp			
275	280	285	
Val Arg Asn Ser Asp Met His Leu Leu Asp Leu Glu Ser Met Gly Lys			
290	295	300	

Ser Ser Asp Gly Lys Ser Tyr Val Ile Thr Gly Ser Trp Asn Pro Lys  
 305 310 315 320  
 Ser Pro His Phe Gln Val Val Asn Glu Glu Thr Pro Lys Asp Lys Val  
 325 330 335  
 Leu Phe Met Thr Thr Ala Val Asp Leu Val Ile Thr Glu Val Gln Glu  
 340 345 350  
 Pro Val Arg Phe Leu Leu Glu Thr Lys Val Arg Val Cys Ser Pro Asn  
 355 360 365  
 Glu Arg Leu Phe Trp Pro Phe Ser Lys Arg Ser Thr Thr Glu Asn Phe  
 370 375 380  
 Phe Leu Lys Leu Lys Gln Ile Lys Gln Arg Glu Arg Lys Asn Asn Thr  
 385 390 395 400  
 Asp Thr Leu Tyr Glu Val Val Cys Leu Glu Ser Glu Ser Glu Arg Glu  
 405 410 415  
 Arg Arg Lys Thr Thr Ala Ser Pro Ser Val Arg Leu Pro Gln Ser Gly  
 420 425 430  
 Ser Gln Ser Ser Val Ile Pro Ser Pro Pro Glu Asp Asp Glu Glu Glu  
 435 440 445  
 Asp Asn Asp Glu Pro Leu Leu Ser Gly Ser Gly Asp Val Ser Lys Glu  
 450 455 460  
 Cys Ala Glu Lys Ile Leu Glu Thr Trp Gly Glu Leu Leu Ser Lys Trp  
 465 470 475 480  
 His Leu Asn Leu Asn Val Arg Pro Lys Gln Leu Ser Ser Leu Val Arg  
 485 490 495  
 Asn Gly Val Pro Glu Ala Leu Arg Gly Glu Val Trp Gln Leu Leu Ala  
 500 505 510  
 Gly Cys His Asn Asn Asp His Leu Val Glu Lys Tyr Arg Ile Leu Ile  
 515 520 525  
 Thr Lys Glu Ser Pro Gln Asp Ser Ala Ile Thr Arg Asp Ile Asn Arg  
 530 535 540  
 Thr Phe Pro Ala His Asp Tyr Phe Lys Asp Thr Gly Gly Asp Gly Gln  
 545 550 555 560  
 Asp Ser Leu Tyr Lys Ile Cys Lys Val Phe His Val Lys Lys Lys Lys  
 565 570 575  
 Asp Ser Ile Leu Ser Gly Gly Ser Thr Leu Lys Leu His Lys Lys Gln  
 580 585 590

Leu Gln Ser Val Ile Cys Ile

595

<210> 4905

<211> 1340

<212> PRT

<213> Homo sapiens

<400> 4905

Met Leu Arg Lys Gly Ala Asn Arg Tyr Leu Thr Val Lys Lys Lys Asp

1 5 10 15

Gly Ser Glu Thr Ala His Ala Met Met Thr Cys Asn Leu Thr His Asn

20 25 30

Thr Lys His Ala Val Arg Ser Leu Ile Gln Arg Phe Pro Val Thr Asn

35 40 45

Lys Glu Arg Thr Glu Leu Leu Pro Lys Thr Glu Arg Gly Asn Val Phe

50 55 60

Ala Val Glu Ala Glu Asn Arg Glu Met Ser Lys Thr Ser Gly Arg Leu

65 70 75 80

Asn Asn Gly Ile Pro Gln Ile Pro Val Lys Arg Gly Glu Ser Glu Phe

85 90 95

Asp Ser Phe Arg Gln Ser Leu Pro Val Phe Glu Lys Gln Glu Glu Ile

100 105 110

Val Lys Ile Ile Lys Glu Asn Lys Val Val Leu Ile Val Gly Glu Thr

115 120 125

Gly Ser Gly Lys Thr Thr Gln Ile Pro Gln Phe Leu Leu Asp Asp Cys

130 135 140

Phe Lys Asn Gly Ile Pro Cys Arg Ile Phe Cys Thr Gln Pro Arg Arg

145 150 155 160

Leu Ala Ala Ile Ala Val Ala Glu Arg Val Ala Ala Glu Arg Arg Glu

165 170 175

Arg Ile Gly Gln Thr Ile Gly Tyr Gln Ile Arg Leu Glu Ser Arg Val

180 185 190

Ser Pro Lys Thr Leu Leu Thr Phe Cys Thr Asn Gly Val Leu Leu Arg

195 200 205

Thr Leu Met Ala Gly Asp Ser Thr Leu Ser Thr Val Thr His Val Ile  
 210 215 220  
 Val Asp Glu Val His Glu Arg Asp Arg Phe Ser Asp Phe Leu Leu Thr  
 225 230 235 240  
 Lys Leu Arg Asp Leu Leu Gln Lys His Pro Thr Leu Lys Leu Ile Leu  
 245 250 255  
 Ser Ser Ala Ala Leu Asp Val Asn Leu Phe Ile Arg Tyr Phe Gly Ser  
 260 265 270  
 Cys Pro Val Ile Tyr Ile Gln Gly Arg Pro Phe Glu Val Lys Glu Met  
 275 280 285  
 Phe Leu Glu Asp Ile Leu Arg Thr Thr Gly Tyr Thr Asn Lys Glu Met  
 290 295 300  
 Leu Lys Tyr Lys Lys Glu Lys Gln Gln Glu Glu Lys Gln Gln Thr Thr  
 305 310 315 320  
 Leu Thr Glu Trp Tyr Ser Ala Gln Glu Asn Ser Phe Lys Pro Glu Ser  
 325 330 335  
 Gln Arg Gln Arg Thr Val Leu Asn Val Thr Asp Glu Tyr Asp Leu Leu  
 340 345 350  
 Asp Asp Gly Gly Asp Ala Val Phe Ser Gln Leu Thr Glu Lys Asp Val  
 355 360 365  
 Asn Cys Leu Glu Pro Trp Leu Ile Lys Glu Met Asp Ala Cys Leu Ser  
 370 375 380  
 Asp Ile Trp Leu His Lys Asp Ile Asp Ala Phe Ala Gln Val Phe His  
 385 390 395 400  
 Leu Ile Leu Thr Glu Asn Val Ser Val Asp Tyr Arg His Ser Glu Thr  
 405 410 415  
 Ser Ala Thr Ala Leu Met Val Ala Ala Gly Arg Gly Phe Ala Ser Gln  
 420 425 430  
 Val Glu Gln Leu Ile Ser Met Gly Ala Asn Val His Ser Lys Ala Ser  
 435 440 445  
 Asn Gly Trp Met Ala Leu Asp Trp Ala Lys His Phe Gly Gln Thr Glu  
 450 455 460  
 Ile Val Asp Leu Leu Glu Ser Tyr Ser Ala Ser Leu Glu Phe Gly Asn  
 465 470 475 480  
 Leu Asp Glu Ser Ser Leu Val Gln Thr Asn Gly Ser Asp Leu Ser Ala  
 485 490 495

Glu Asp Arg Glu Leu Leu Lys Ala Tyr His His Ser Phe Asp Asp Glu  
 500 505 510  
 Lys Val Asp Leu Asp Leu Ile Met His Leu Leu Tyr Asn Ile Cys His  
 515 520 525  
 Ser Cys Asp Ala Gly Ala Val Leu Ile Phe Leu Pro Gly Tyr Asp Glu  
 530 535 540  
 Ile Val Gly Leu Arg Asp Arg Ile Leu Phe Asp Asp Lys Arg Phe Ala  
 545 550 555 560  
 Asp Asn Thr His Arg Tyr Gln Val Phe Met Leu His Ser Asn Met Gln  
 565 570 575  
 Thr Ser Asp Gln Lys Lys Val Leu Lys Asn Pro Pro Ala Gly Val Arg  
 580 585 590  
 Lys Ile Ile Leu Ser Thr Asn Ile Ala Glu Thr Ser Ile Thr Val Asn  
 595 600 605  
 Asp Val Val Phe Val Ile Asp Ser Gly Lys Val Lys Glu Lys Ser Phe  
 610 615 620  
 Asp Ala Leu Asn Phe Val Thr Met Leu Lys Met Val Trp Ile Ser Lys  
 625 630 635 640  
 Ala Ser Ala Ile Gln Arg Lys Gly Arg Ala Gly Arg Cys Arg Pro Gly  
 645 650 655  
 Ile Cys Phe Arg Leu Phe Ser Arg Leu Arg Phe Gln Asn Met Leu Glu  
 660 665 670  
 Phe Gln Thr Pro Glu Leu Leu Arg Met Pro Leu Gln Glu Leu Cys Leu  
 675 680 685  
 His Thr Lys Leu Leu Ala Pro Val Asn Cys Pro Ile Ala Asp Phe Leu  
 690 695 700  
 Met Lys Ala Pro Glu Pro Pro Pro Ala Leu Ile Val Arg Asn Ala Val  
 705 710 715 720  
 Gln Met Leu Lys Thr Ile Asp Ala Met Asp Thr Trp Glu Asp Leu Thr  
 725 730 735  
 Glu Leu Gly Tyr His Leu Ala Asp Leu Pro Val Glu Pro His Leu Gly  
 740 745 750  
 Lys Met Val Leu Cys Ala Val Val Leu Lys Cys Leu Asp Pro Ile Leu  
 755 760 765  
 Thr Ile Ala Cys Thr Leu Ala Tyr Arg Asp Pro Phe Val Leu Pro Thr  
 770 775 780

Gln Ala Ser Gln Lys Arg Ala Ala Met Leu Cys Arg Lys Arg Phe Thr  
 785 790 795 800  
 Ala Gly Ala Phe Ser Asp His Met Ala Leu Leu Arg Ala Phe Gln Ala  
 805 810 815  
 Trp Gln Lys Ala Arg Ser Asp Gly Trp Glu Arg Ala Phe Cys Glu Lys  
 820 825 830  
 Asn Phe Leu Ser Gln Ala Thr Met Glu Ile Ile Ile Gly Met Arg Thr  
 835 840 845  
 Gln Leu Leu Gly Gln Leu Arg Ala Ser Gly Phe Val Arg Ala Arg Gly  
 850 855 860  
 Gly Gly Asp Ile Arg Asp Val Asn Thr Asn Ser Glu Asn Trp Ala Val  
 865 870 875 880  
 Val Lys Ala Ala Leu Val Ala Gly Met Tyr Pro Asn Leu Val His Val  
 885 890 895  
 Asp Arg Glu Asn Leu Val Leu Thr Gly Pro Lys Glu Lys Lys Val Arg  
 900 905 910  
 Phe His Pro Ala Ser Val Leu Ser Gln Pro Gln Tyr Lys Lys Ile Pro  
 915 920 925  
 Pro Ala Asn Gly Gln Ala Ala Ala Ile Lys Ala Leu Pro Thr Asp Trp  
 930 935 940  
 Leu Ile Tyr Asp Glu Met Thr Arg Ala His Arg Ile Ala Asn Ile Arg  
 945 950 955 960  
 Cys Cys Ser Ala Val Thr Pro Val Thr Ile Leu Val Phe Cys Gly Pro  
 965 970 975  
 Ala Arg Leu Ala Ser Asn Ala Leu Gln Glu Pro Ser Ser Phe Arg Val  
 980 985 990  
 Asp Gly Ile Pro Asn Asp Ser Ser Asp Ser Glu Met Glu Asp Lys Thr  
 995 1000 1005  
 Thr Ala Asn Leu Ala Ala Leu Lys Leu Asp Glu Trp Leu His Phe Thr  
 1010 1015 1020  
 Leu Glu Pro Glu Ala Ala Ser Leu Leu Leu Gln Leu Arg Gln Lys Trp  
 1025 1030 1035 1040  
 His Ser Leu Phe Leu Arg Arg Met Arg Ala Pro Ser Lys Pro Trp Ser  
 1045 1050 1055  
 Gln Val Asp Glu Ala Thr Ile Arg Ala Ile Ile Ala Val Leu Ser Thr  
 1060 1065 1070

Glu Glu Gln Ser Ala Gly Leu Gln Gln Pro Ser Gly Ile Gly Gln Arg  
 1075 1080 1085  
 Pro Arg Pro Met Ser Ser Glu Glu Leu Pro Leu Ala Ser Ser Trp Arg  
 1090 1095 1100  
 Ser Asn Asn Ser Arg Lys Ser Ser Ala Asp Thr Glu Phe Ser Asp Glu  
 1105 1110 1115 1120  
 Cys Thr Thr Ala Glu Arg Val Leu Met Lys Ser Pro Ser Pro Ala Leu  
 1125 1130 1135  
 His Pro Pro Gln Lys Tyr Lys Asp Arg Gly Ile Leu His Pro Lys Arg  
 1140 1145 1150  
 Gly Thr Glu Asp Arg Ser Asp Gln Ser Ser Leu Lys Ser Thr Asp Ser  
 1155 1160 1165  
 Ser Ser Tyr Pro Ser Pro Cys Ala Ser Pro Ser Pro Pro Ser Ser Gly  
 1170 1175 1180  
 Lys Gly Ser Lys Ser Pro Ser Pro Arg Pro Asn Met Pro Val Arg Tyr  
 1185 1190 1195 1200  
 Phe Ile Met Lys Ser Ser Asn Leu Arg Asn Leu Glu Ile Ser Gln Gln  
 1205 1210 1215  
 Lys Gly Ile Trp Ser Thr Thr Pro Ser Asn Glu Arg Lys Leu Asn Arg  
 1220 1225 1230  
 Ala Phe Trp Glu Ser Ser Ile Val Tyr Leu Val Phe Ser Val Gln Gly  
 1235 1240 1245  
 Ser Gly His Phe Gln Gly Phe Ser Arg Met Ser Ser Glu Ile Gly Arg  
 1250 1255 1260  
 Glu Lys Ser Gln Asp Trp Gly Ser Ala Gly Leu Gly Val Phe Lys  
 1265 1270 1275 1280  
 Val Glu Trp Ile Arg Lys Glu Ser Leu Pro Phe Gln Phe Ala His His  
 1285 1290 1295  
 Leu Leu Asn Pro Trp Asn Asp Asn Lys Lys Val Gln Ile Ser Arg Asp  
 1300 1305 1310  
 Gly Gln Glu Leu Glu Pro Gln Val Gly Glu Gln Leu Leu Gln Leu Trp  
 1315 1320 1325  
 Glu Arg Leu Pro Leu Gly Glu Lys Asn Thr Thr Asp  
 1330 1335 1340

&lt;210&gt; 4906

&lt;211&gt; 574

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4906

Met Thr Ala Gly Ser Val Cys Val Pro Gln Ile Ile Pro Leu Arg Val  
 1 5 10 15

Pro Gln Pro Gly Lys Ala Asn His Glu Ile Asp Asn Asn Thr Leu Leu  
 20 25 30

Glu Met Lys Ser Asp Thr Pro Asp Val Asn Ile Tyr Tyr Thr Leu Asp  
 35 40 45

Gly Ser Lys Pro Glu Phe Leu Lys Arg Ile Gly Tyr Gly Glu Asn Asn  
 50 55 60

Thr Phe Lys Tyr Ile Lys Pro Ile Thr Leu Pro Asp Gly Lys Ile Gln  
 65 70 75 80

Val Lys Ala Ile Ala Val Ser Lys Asp Cys Arg Gln Ser Gly Ile Val  
 85 90 95

Thr Lys Val Phe His Val Asp Tyr Glu Pro Pro Asn Ile Val Ser Pro  
 100 105 110

Glu Asp Asn Val Glu Asn Val Leu Lys Asp Ser Ser Arg Gln Glu Phe  
 115 120 125

Lys Asn Gly Phe Val Gly Ser Lys Leu Lys Lys Tyr Lys Asn Ser  
 130 135 140

Glu Asn Gln Arg Ser Trp Asn Val Asn Leu Arg Lys Phe Pro Glu Ser  
 145 150 155 160

Pro Leu Glu Ile Pro Ala Tyr Gly Gly Ser Gly Ser Arg Pro Pro  
 165 170 175

Thr Arg Gln Ser Gln Ser Pro Gly Phe Ala His Val Ser Gly Gln Lys  
 180 185 190

Cys Leu Thr Ser Thr Glu Ile Met Arg Ile Gln Arg Glu Thr Asp Phe  
 195 200 205

Leu Lys Cys Ala His Cys Leu Ala Pro Arg Pro Ser Asp Pro Phe Ala  
 210 215 220

Arg Phe Cys Gln Glu Cys Gly Ser Pro Val Pro Pro Ile Phe Gly Cys  
 225 230 235 240

Arg Leu Pro Pro Pro Glu Gly Ala Gln Met Gly Leu Cys Ala Glu Cys  
 245 250 255  
 Arg Ser Leu Val Pro Met Asn Thr Pro Ile Cys Val Val Cys Glu Ala  
 260 265 270  
 Pro Leu Ala Leu Gln Leu Gln Pro Gln Ala Ser Leu His Leu Lys Glu  
 275 280 285  
 Lys Val Ile Cys Arg Ala Cys Gly Thr Gly Asn Pro Ala His Leu Arg  
 290 295 300  
  
 Tyr Cys Val Thr Cys Glu Gly Ala Leu Pro Ser Ser Gln Glu Ser Met  
 305 310 315 320  
 Cys Ser Gly Asp Lys Ala Pro Pro Pro Pro Thr Gln Lys Gly Gly Thr  
 325 330 335  
 Ile Ser Cys Tyr Arg Cys Gly Arg Trp Asn Leu Trp Glu Ala Ser Phe  
 340 345 350  
 Cys Gly Trp Cys Gly Ala Met Leu Gly Ile Pro Ala Gly Cys Ser Val  
 355 360 365  
 Cys Pro Lys Cys Gly Ala Ser Asn His Leu Ser Ala Arg Phe Cys Gly  
 370 375 380  
 Ser Cys Gly Ile Cys Val Lys Ser Leu Val Lys Leu Ser Leu Asp Arg  
 385 390 395 400  
 Ser Leu Ala Leu Ala Ala Glu Glu Pro Arg Pro Phe Ser Glu Ser Leu  
 405 410 415  
 Asn Ile Pro Leu Pro Arg Ser Asp Val Gly Thr Lys Arg Asp Ile Gly  
 420 425 430  
 Thr Gln Thr Val Gly Leu Phe Tyr Pro Ser Gly Lys Leu Leu Ala Lys  
 435 440 445  
 Lys Glu Gln Glu Leu Ala Ser Gln Lys Gln Arg Gln Glu Lys Met Ser  
 450 455 460  
 Asp His Lys Pro Leu Leu Thr Ala Ile Ser Pro Gly Arg Gly Tyr Trp  
 465 470 475 480  
 Arg Arg Gln Leu Asp His Ile Ser Ala His Leu Arg Cys Tyr Ala Gln  
 485 490 495  
 Asn Asn Pro Glu Phe Arg Ala Leu Ile Ala Glu Pro Arg Met Gly Lys  
 500 505 510  
 Leu Ile Ser Ala Thr Val His Glu Asp Gly Cys Glu Val Ser Ile Arg

515	520	525
Leu Asn Tyr Ser Gln Val Ser Asn Lys Val Arg Lys Leu Arg		
530	535	540
Glu Val Lys Gln Pro Ala Ser Ser Lys Gly Thr Lys Leu Val Ser Gly		
545	550	555
Arg Pro Arg Ile His Thr Trp Gln Pro Glu Thr Phe Pro Ser		
565	570	

<210> 4907

<211> 534

<212> PRT

<213> Homo sapiens

<400> 4907

Met Gly Val Pro Thr Ala Val Ser Ala Thr Pro Val Arg Ala Asp Ala			
1	5	10	15
Ser Ser Lys Pro Gln Pro Leu Leu Gln Ser Gln Pro His Leu Phe Phe			
20	25	30	
Phe Pro Lys Leu Leu Ser Arg Leu Leu Gly Ser Pro Leu Pro Val His			
35	40	45	
Ser Ala Gly Pro Gly Pro Leu Leu Thr Arg Met Pro Gln Ala Thr Thr			
50	55	60	
Val Ser Leu Arg Leu Gly Ser Trp Ser Leu Thr Glu Asp Arg Asp Val			
65	70	75	80
Ser Gly Glu Trp Pro Arg Ala Phe Pro Asp Thr Pro Pro Gly Met Thr			
85	90	95	
Thr Ser Val Phe Pro Val Ala Asp Ala Cys His Ser Val Lys Ser Leu			
100	105	110	
Gln Arg Gln Pro Gly Ala Ser Pro Ser Gln Glu Arg Lys Pro Thr Gly			
115	120	125	
Val Ser Val Ile Tyr Trp Glu Arg Leu Leu Gly Ser Arg Ser Asp			
130	135	140	
Gln Ala Ser Ile Ser Leu Arg Leu Thr Ser Pro Leu Arg Pro Pro Lys			
145	150	155	160
Ser Ser Arg Pro Arg Glu Lys Thr Phe Thr Glu Tyr Arg Val Pro Gly			

165	170	175
Arg Gln Pro Arg Thr Pro Glu Arg Gln Lys Pro Cys Ala Gln Glu Val		
180	185	190
Pro Gly Arg Ala Phe Gly Asn Ala Ser Asp Leu Lys Ala Ala Ser Gly		
195	200	205
Gly Arg Asp Arg Arg Met Gly Ala Ala Trp Gln Glu Pro His Arg Leu		
210	215	220
Leu Gly Gly Gln Glu Pro Ser Thr Trp Asp Glu Leu Gly Glu Ala Leu		
225	230	235
His Ala Gly Glu Lys Ser Phe Glu Cys Arg Ala Cys Ser Lys Val Phe		
245	250	255
Val Lys Ser Ser Asp Leu Leu Lys His Leu Arg Thr His Thr Gly Glu		
260	265	270
Arg Pro Tyr Glu Cys Thr Gln Cys Gly Lys Ala Phe Ser Gln Thr Ser		
275	280	285
His Leu Thr Gln His Gln Arg Ile His Ser Gly Glu Thr Pro Tyr Ala		
290	295	300
Cys Pro Val Cys Gly Lys Ala Phe Arg His Ser Ser Ser Leu Val Arg		
305	310	315
His Gln Arg Ile His Thr Ala Glu Lys Ser Phe Arg Cys Ser Glu Cys		
325	330	335
Gly Lys Ala Phe Ser His Gly Ser Asn Leu Ser Gln His Arg Lys Ile		
340	345	350
His Ala Gly Gly Arg Pro Tyr Ala Cys Ala Gln Cys Gly Arg Arg Phe		
355	360	365
Cys Arg Asn Ser His Leu Ile Gln His Glu Arg Thr His Thr Gly Glu		
370	375	380
Lys Pro Phe Val Cys Ala Leu Arg Gly Ala Ala Phe Ser Gln Gly Ser		
385	390	395
Ser Leu Phe Leu His Gln Arg Val His Thr Gly Glu Lys Pro Phe Ala		
405	410	415
Cys Ala Gln Cys Gly Arg Ser Phe Ser Arg Ser Ser Asn Leu Thr Gln		
420	425	430
His Gln Leu Leu His Thr Gly Glu Arg Pro Phe Arg Cys Val Asp Cys		
435	440	445
Gly Lys Gly Phe Ala Lys Gly Ala Val Leu Leu Ser His Arg Arg Ile		

450	455	460
His Thr Gly Glu Lys Pro Phe Val Cys Thr Gln Cys Gly Arg Ala Phe		
465	470	475
Arg Glu Arg Pro Ala Leu Leu His His Gln Arg Ile His Thr Thr Glu		
485	490	495
Lys Thr Asn Ala Ala Ala Pro Asp Cys Thr Pro Gly Pro Gly Phe Leu		
500	505	510
Gln Gly His His Arg Lys Val Arg Arg Gly Gly Lys Pro Ser Pro Val		
515	520	525
Leu Lys Pro Ala Lys Val		
530		

<210> 4908

<211> 1300

<212> PRT

<213> Homo sapiens

<400> 4908

Met Pro Pro Asp Val Ile Arg Asp Ile Leu Glu Gly Val Leu Arg Leu		
1	5	10
Met Gly Ile Phe Asp Thr Ser Trp Val Ser Met Lys Ser Phe Leu Ala		
20	25	30
Lys Arg Gly Val Arg Glu Asp Ile Ala Thr Phe Asp Ala Arg Asn Ile		
35	40	45
Ser Lys Glu Ile Arg Glu Ser Val Glu Glu Leu Leu Phe Lys Asn Lys		
50	55	60
Gly Ser Phe Asp Pro Lys Asn Ala Lys Arg Ala Ser Thr Ala Ala Ala		
65	70	75
Pro Leu Ala Ala Trp Val Lys Ala Asn Ile Gln Tyr Ser His Val Leu		
85	90	95
Glu Arg Ile His Pro Leu Glu Thr Glu Gln Ala Gly Leu Glu Ser Asn		
100	105	110
Leu Lys Lys Thr Glu Asp Arg Lys Arg Lys Leu Glu Glu Leu Leu Asn		
115	120	125
Ser Val Gly Gln Lys Val Ser Glu Leu Lys Glu Lys Phe Gln Ser Arg		

130	135	140
Thr Ser Glu Ala Ala Lys Leu Glu Ala Glu Val Ser Lys Ala Gln Glu		
145	150	155
Thr Ile Lys Ala Ala Glu Val Leu Ile Asn Gln Leu Asp Arg Glu His		160
165	170	175
Lys Arg Trp Asn Ala Gln Val Val Glu Ile Thr Glu Glu Leu Ala Thr		
180	185	190
Leu Pro Lys Arg Ala Gln Leu Ala Ala Phe Ile Thr Tyr Leu Ser		
195	200	205
Ala Ala Pro Glu Ser Leu Arg Lys Thr Cys Leu Glu Glu Trp Thr Lys		
210	215	220
Ser Ala Gly Leu Glu Lys Phe Asp Leu Arg Arg Phe Leu Cys Thr Glu		
225	230	235
Ser Glu Gln Leu Ile Trp Lys Ser Glu Gly Leu Pro Ser Asp Asp Leu		240
245	250	255
Ser Ile Glu Asn Ala Leu Val Ile Leu Gln Ser Arg Val Cys Pro Phe		
260	265	270
Leu Ile Asp Pro Ser Ser Gln Ala Thr Glu Trp Leu Lys Thr His Leu		
275	280	285
Lys Asp Ser Arg Leu Glu Val Ile Asn Gln Gln Asp Ser Asn Phe Ile		
290	295	300
Thr Ala Leu Glu Leu Ala Val Arg Phe Gly Lys Thr Leu Ile Ile Gln		
305	310	315
Glu Met Asp Gly Val Glu Pro Val Leu Tyr Pro Leu Leu Arg Arg Asp		320
325	330	335
Leu Val Ala Gln Gly Pro Arg Tyr Val Val Gln Ile Gly Asp Lys Ile		
340	345	350
Ile Asp Tyr Asn Glu Glu Phe Arg Leu Phe Leu Ser Thr Arg Asn Pro		
355	360	365
Asn Pro Phe Ile Pro Pro Asp Ala Ala Ser Ile Val Thr Glu Val Asn		
370	375	380
Phe Thr Thr Thr Arg Ser Gly Leu Arg Gly Gln Leu Leu Ala Leu Thr		
385	390	395
Ile Gln His Glu Lys Pro Asp Leu Glu Glu Gln Lys Thr Lys Leu Leu		400
405	410	415
Gln Gln Glu Glu Asp Lys Lys Ile Gln Leu Ala Lys Leu Glu Glu Ser		

420	425	430
Leu Leu Glu Thr Leu Ala Thr Ser Gln Gly Asn Ile Leu Glu Asn Lys		
435	440	445
Asp Leu Ile Glu Ser Leu Asn Gln Thr Lys Ala Ser Ser Ala Leu Ile		
450	455	460
Gln Glu Ser Leu Lys Glu Ser Tyr Lys Leu Gln Ile Ser Leu Asp Gln		
465	470	475
Glu Arg Asp Ala Tyr Leu Pro Leu Ala Glu Ser Ala Ser Lys Met Tyr		
485	490	495
Phe Ile Ile Ser Asp Leu Ser Lys Ile Asn Asn Met Tyr Arg Phe Ser		
500	505	510
Leu Ala Ala Phe Leu Arg Leu Phe Gln Arg Ala Leu Gln Asn Lys Gln		
515	520	525
Asp Ser Glu Asn Thr Glu Gln Arg Ile Gln Ser Leu Ile Ser Ser Leu		
530	535	540
Gln His Met Val Tyr Glu Tyr Ile Cys Arg Cys Leu Phe Lys Ala Asp		
545	550	555
Gln Leu Met Phe Ala Leu His Phe Val Arg Gly Met His Pro Glu Leu		
565	570	575
Phe Gln Glu Asn Glu Trp Asp Thr Phe Thr Gly Val Val Val Gly Asp		
580	585	590
Met Leu Arg Lys Ala Asp Ser Gln Gln Lys Ile Arg Asp Gln Leu Pro		
595	600	605
Ser Trp Ile Asp Gln Glu Arg Ser Trp Ala Val Ala Thr Leu Lys Ile		
610	615	620
Ala Leu Pro Ser Leu Tyr Gln Thr Leu Cys Phe Glu Asp Ala Ala Leu		
625	630	635
Trp Arg Thr Tyr Tyr Asn Asn Ser Met Cys Glu Gln Glu Phe Pro Ser		
645	650	655
Ile Leu Ala Lys Lys Val Ser Leu Phe Gln Gln Ile Leu Val Val Gln		
660	665	670
Ala Leu Arg Pro Asp Arg Leu Gln Ser Ala Met Ala Leu Phe Ala Cys		
675	680	685
Lys Thr Leu Gly Leu Lys Glu Val Ser Pro Leu Pro Leu Asn Leu Lys		
690	695	700
Arg Leu Tyr Lys Glu Thr Leu Glu Ile Glu Pro Ile Leu Ile Ile		

705	710	715	720
Ser Pro Gly Ala Asp Pro Ser Gln Glu Leu Gln Glu Leu Ala Asn Ala			
725	730	735	
Glu Arg Ser Gly Glu Cys Tyr His Gln Val Ala Met Gly Gln Gly Gln			
740	745	750	
Ala Asp Leu Ala Ile Gln Met Leu Lys Glu Cys Ala Arg Asn Gly Asp			
755	760	765	
Trp Leu Cys Leu Lys Asn Leu His Leu Val Val Ser Trp Leu Pro Val			
770	775	780	
Leu Glu Lys Glu Leu Asn Thr Leu Gln Pro Lys Asp Thr Phe Arg Leu			
785	790	795	800
Trp Leu Thr Ala Glu Val His Pro Asn Phe Thr Pro Ile Leu Leu Gln			
805	810	815	
Ser Ser Leu Lys Ile Thr Tyr Glu Ser Pro Pro Gly Leu Lys Lys Asn			
820	825	830	
Leu Met Arg Thr Tyr Glu Ser Trp Thr Pro Glu Gln Ile Ser Lys Lys			
835	840	845	
Asp Asn Thr His Arg Ala His Ala Leu Phe Ser Leu Ala Trp Phe His			
850	855	860	
Ala Ala Cys Gln Glu Arg Arg Asn Tyr Ile Pro Gln Gly Trp Thr Lys			
865	870	875	880
Phe Tyr Glu Phe Ser Leu Ser Asp Leu Arg Ala Gly Tyr Asn Ile Ile			
885	890	895	
Asp Arg Leu Phe Asp Gly Ala Lys Asp Val Gln Trp Glu Phe Val His			
900	905	910	
Gly Leu Leu Glu Asn Ala Ile Tyr Gly Gly Arg Ile Asp Asn Tyr Phe			
915	920	925	
Asp Leu Arg Val Leu Gln Ser Tyr Leu Lys Gln Phe Phe Asn Ser Ser			
930	935	940	
Val Ile Asp Val Phe Asn Gln Arg Asn Lys Lys Ser Ile Phe Pro Tyr			
945	950	955	960
Ser Val Ser Leu Pro Gln Ser Cys Ser Ile Leu Asp Tyr Arg Ala Val			
965	970	975	
Ile Glu Lys Ile Pro Glu Asp Asp Lys Pro Ser Phe Phe Gly Leu Pro			
980	985	990	
Ala Asn Ile Ala Arg Ser Ser Gln Arg Met Ile Ser Ser Gln Val Ile			

995	1000	1005
Ser Gln Leu Arg Ile Leu Gly Arg Ser Ile Thr Ala Gly Ser Lys Phe		
1010	1015	1020
Asp Arg Glu Ile Trp Ser Asn Glu Leu Ser Pro Val Leu Asn Leu Trp		
1025	1030	1035
Lys Lys Leu Asn Gln Asn Ser Asn Leu Ile His Gln Lys Val Pro Pro		
1045	1050	1055
Pro Asn Asp Arg Gln Gly Ser Pro Ile Leu Ser Phe Ile Ile Leu Glu		
1060	1065	1070
Gln Phe Asn Ala Ile Arg Leu Val Gln Ser Val His Gln Ser Leu Ala		
1075	1080	1085
Ala Leu Ser Lys Val Ile Arg Gly Thr Thr Leu Leu Ser Ser Glu Val		
1090	1095	1100
Gln Lys Leu Ala Ser Ala Leu Leu Asn Gln Lys Cys Pro Leu Ala Trp		
1105	1110	1115
Gln Ser Lys Trp Glu Gly Pro Glu Asp Pro Leu Gln Tyr Leu Arg Gly		
1125	1130	1135
Leu Val Ala Arg Ala Leu Ala Ile Gln Asn Trp Val Asp Lys Ala Glu		
1140	1145	1150
Lys Gln Ala Leu Leu Ser Glu Thr Leu Asp Leu Ser Glu Leu Phe His		
1155	1160	1165
Pro Asp Thr Phe Leu Asn Ala Leu Arg Gln Glu Thr Ala Arg Ala Val		
1170	1175	1180
Gly Arg Ser Val Asp Ser Leu Lys Phe Val Ala Ser Trp Lys Gly Arg		
1185	1190	1195
Leu Gln Glu Ala Lys Leu Gln Ile Lys Ile Ser Gly Leu Leu Leu Glu		
1205	1210	1215
Gly Cys Ser Phe Asp Gly Asn Gln Leu Ser Glu Asn Gln Leu Asp Ser		
1220	1225	1230
Pro Ser Val Ser Ser Val Leu Pro Cys Phe Met Gly Trp Ile Pro Gln		
1235	1240	1245
Asp Ala Cys Gly Pro Tyr Ser Pro Asp Glu Cys Ile Ser Leu Pro Val		
1250	1255	1260
Tyr Thr Ser Ala Glu Arg Asp Arg Val Val Thr Asn Ile Asp Val Pro		
1265	1270	1275
Cys Gly Gly Asn Gln Asp Gln Trp Ile Gln Cys Gly Ala Ala Leu Phe		

1285

1290

1295

Leu Lys Asn Gln

1300

&lt;210&gt; 4909

&lt;211&gt; 944

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4909

Met Gly Ser Asp Gly Ile Leu Arg Leu Ser Thr Ser Ala Leu Asn Asn

1 5 10 15

Glu Phe Phe Ala Tyr Ala Ala Gln Gly Trp Lys Gln Arg Leu Ala Glu

20 25 30

Gly Glu Phe Thr Pro Glu Met Gln Leu Arg Ile Arg Gln Glu Ile Glu

35 40 45

Lys Glu Lys Lys Thr Glu Pro Trp Lys Glu Lys Phe Phe Glu Arg Phe

50 55 60

Tyr Gly Glu Lys Leu Gly Met Ser Arg Glu Glu Ser Val Lys Leu Thr

65 70 75 80

Thr Gly Pro Asn Asn Ala Gly Ala Gln Ser Ser Ser Ser Cys Gly Thr

85 90 95

Ser Gly Leu Pro Val Ser Ala Gln Thr Ala Leu Ala Glu Gln Gln Pro

100 105 110

Lys Ser Met Lys Ser Pro Ala Ser Pro Glu Pro Gly Phe Cys Ala Thr

115 120 125

Leu Cys Pro Met Val Glu Ile Pro Pro Lys Asp Ile Met Ala Glu Leu

130 135 140

Glu Ser Glu Asp Ile Leu Ile Pro Glu Glu Ser Val Ile Gln Glu Glu

145 150 155 160

Ile Ala Glu Glu Val Glu Thr Ser Ile Cys Glu Cys Gln Asp Glu Asn

165 170 175

His Lys Thr Ile Pro Glu Phe Ser Glu Glu Ala Glu Ser Leu Thr Asn

180 185 190

Ser His Glu Glu Pro Gln Ile Ala Pro Pro Glu Asp Asn Leu Glu Ser

195	200	205	
Cys Val Met Met Asn Asp Val Leu Glu Thr Leu Pro His Ile Glu Val			
210	215	220	
Lys Ile Glu Gly Lys Ser Glu Ser Pro Gln Glu Glu Met Thr Val Val			
225	230	235	240
Ile Asp Gln Leu Glu Val Cys Asp Ser Leu Ile Pro Ser Thr Ser Ser			
245	250	255	
Met Thr His Val Ser Asp Thr Glu His Lys Glu Ser Glu Thr Ala Val			
260	265	270	
Glu Thr Ser Thr Pro Lys Ile Lys Thr Gly Ser Ser Ser Leu Glu Gly			
275	280	285	
Gln Phe Pro Asn Glu Gly Ile Ala Ile Asp Met Glu Leu Gln Ser Asp			
290	295	300	
Pro Glu Glu Gln Leu Ser Glu Asn Ala Cys Ile Ser Glu Thr Ser Phe			
305	310	315	320
Ser Ser Glu Ser Pro Glu Gly Ala Cys Thr Ser Leu Pro Ser Pro Gly			
325	330	335	
Gly Glu Thr Gln Ser Thr Ser Glu Glu Ser Cys Thr Pro Ala Ser Leu			
340	345	350	
Glu Thr Thr Phe Cys Ser Glu Val Ser Ser Thr Glu Asn Thr Asp Lys			
355	360	365	
Tyr Asn Gln Arg Asn Ser Thr Asp Glu Asn Phe His Ala Ser Leu Met			
370	375	380	
Ser Glu Ile Ser Pro Ile Ser Thr Ser Pro Glu Ile Ser Glu Ala Ser			
385	390	395	400
Leu Met Ser Asn Leu Pro Leu Thr Ser Glu Ala Ser Pro Val Ser Asn			
405	410	415	
Leu Pro Leu Thr Ser Glu Thr Ser Pro Met Ser Asp Leu Pro Leu Thr			
420	425	430	
Ser Lys Thr Ser Ser Val Ser Ser Met Leu Leu Thr Ser Glu Thr Thr			
435	440	445	
Phe Val Ser Ser Leu Pro Leu Pro Ser Glu Thr Ser Pro Ile Ser Asn			
450	455	460	
Ser Ser Ile Asn Glu Arg Met Ala His Gln Gln Arg Lys Ser Pro Ser			
465	470	475	480

Val Ser Glu Glu Pro Leu Ser Pro Gln Lys Asp Glu Ser Ser Ala Thr  
                  485                 490                 495  
 Ala Lys Pro Leu Gly Glu Asn Leu Thr Ser Gln Gln Lys Asn Leu Ser  
                  500                 505                 510  
 Asn Thr Pro Glu Pro Ile Ile Met Ser Ser Ser Ser Ile Ala Pro Glu  
                  515                 520                 525  
 Ala Phe Pro Ser Glu Asp Leu His Asn Lys Thr Leu Ser Gln Gln Thr  
                  530                 535                 540  
 Cys Lys Ser His Val Asp Thr Glu Lys Pro Tyr Pro Ala Ser Ile Pro  
                  545                 550                 555                 560  
 Glu Leu Ala Ser Thr Glu Met Ile Lys Val Lys Asn His Ser Val Leu  
                  565                 570                 575  
 Gln Arg Thr Glu Lys Lys Val Leu Pro Ser Pro Leu Glu Leu Ser Val  
                  580                 585                 590  
 Phe Ser Glu Gly Thr Asp Asn Lys Gly Asn Glu Leu Pro Ser Ala Lys  
                  595                 600                 605  
 Leu Gln Asp Lys Gln Tyr Ile Ser Ser Val Asp Lys Ala Pro Phe Ser  
                  610                 615                 620  
 Glu Gly Ser Arg Asn Lys Thr His Lys Gln Gly Ser Thr Gln Ser Arg  
                  625                 630                 635                 640  
 Leu Glu Thr Ser His Thr Ser Lys Ser Ser Glu Pro Ser Lys Ser Pro  
                  645                 650                 655  
 Asp Gly Ile Arg Asn Glu Ser Arg Asp Ser Glu Ile Ser Lys Arg Lys  
                  660                 665                 670  
 Thr Ala Glu Gln His Ser Phe Gly Ile Cys Lys Glu Lys Arg Ala Arg  
                  675                 680                 685  
 Ile Glu Asp Asp Gln Ser Thr Arg Asn Ile Ser Ser Ser Pro Pro  
                  690                 695                 700  
 Glu Lys Glu Gln Pro Pro Arg Glu Glu Pro Arg Val Pro Pro Leu Lys  
                  705                 710                 715                 720  
 Ile Gln Leu Ser Lys Ile Gly Pro Pro Phe Ile Ile Lys Ser Gln Pro  
                  725                 730                 735  
 Val Ser Lys Pro Glu Ser Arg Ala Ser Thr Ser Thr Ser Val Ser Gly  
                  740                 745                 750  
 Gly Arg Asn Thr Gly Ala Arg Thr Leu Ala Asp Ile Lys Ala Arg Ala  
                  755                 760                 765

Gln Gln Ala Arg Ala Gln Arg Glu Ala Ala Ala Ala Ala Ala Val Ala  
 770 775 780  
 Ala Ala Ala Ser Ile Val Ser Gly Ala Met Gly Ser Pro Gly Glu Gly  
 785 790 795 800  
 Gly Lys Thr Arg Thr Leu Ala His Ile Lys Glu Gln Thr Lys Ala Lys  
 805 810 815  
 Leu Phe Ala Lys His Gln Ala Arg Ala His Leu Phe Gln Thr Ser Lys  
 820 825 830  
 Glu Thr Arg Leu Pro Pro Pro Leu Ser Ser Lys Glu Gly Pro Pro Asn  
 835 840 845  
 Leu Glu Val Ser Ser Thr Pro Glu Thr Lys Met Glu Gly Ser Thr Gly  
 850 855 860  
 Val Ile Ile Val Asn Pro Asn Cys Arg Ser Pro Ser Asn Lys Ser Ala  
 865 870 875 880  
 His Leu Arg Glu Thr Thr Thr Val Leu Gln Gln Ser Leu Asn Pro Ser  
 885 890 895  
 Lys Leu Pro Glu Thr Ala Thr Asp Leu Ser Val His Ser Ser Asp Glu  
 900 905 910  
 Asn Ile Pro Val Ser His Leu Ser Glu Lys Ile Val Ser Ser Thr Ser  
 915 920 925  
 Ser Glu Asn Ser Ser Val Pro Met Leu Phe Asn Lys Asn Ser Val Pro  
 930 935 940

<210> 4910

<211> 1161

<212> PRT

<213> Homo sapiens

<400> 4910

Met Cys Ser Thr Pro Gly Met Pro Ala Pro Gly Ala Ser Leu Ala Leu  
 1 5 10 15  
 Arg Val Ser Phe Val Asp Val His Pro Asp Val Ile Pro Val Gln Leu  
 20 25 30  
 Trp Gly Leu Val Gly Glu Arg Arg Gly Glu Tyr Leu Arg Leu Ser Arg  
 35 40 45

Glu Ile Gln Glu Ala Ala Ala Thr Arg Gly Gln Trp Ala Leu Gly Ser  
 50 55 60  
 Ala Ser Ala Ser Pro Gly Glu Leu Cys Leu Val Gln Val Gly Leu Leu  
 65 70 75 80  
 Trp His Arg Cys Arg Val Val Ser Arg Gln Ala Gln Glu Ser Arg Val  
 85 90 95  
 Phe Leu Leu Asp Glu Gly Arg Thr Ile Thr Ala Gly Ala Gly Ser Leu  
 100 105 110  
 Ala Pro Gly Arg Arg Glu Phe Phe Asn Leu Pro Ser Glu Val Leu Gly  
 115 120 125  
 Cys Val Leu Ala Gly Leu Val Pro Ala Gly Cys Gly Ala Gly Ser Gly  
 130 135 140  
 Glu Pro Pro Gln His Trp Pro Ala Asp Ala Val Asp Phe Leu Ser Asn  
 145 150 155 160  
 Leu Gln Gly Lys Glu Val His Gly Cys Val Leu Asp Val Leu Leu  
 165 170 175  
 His Arg Leu Val Leu Leu Glu Val Pro Asp Val Phe Gln Gln Met Arg  
 180 185 190  
 Glu Leu Gly Leu Ala Arg Arg Val Pro Asp Ser Leu Phe Arg Ser Leu  
 195 200 205  
 Leu Glu Arg Tyr Leu Thr Ala Ala Thr Ala Ser Val Gly Ser Gly Val  
 210 215 220  
 Pro Val Leu Ser Arg Val Pro Leu Lys Gln Lys Gln Pro Gly Leu Asp  
 225 230 235 240  
 Tyr Phe Tyr Pro Gln Leu Gln Leu Gly Val Thr Glu Ala Val Val Ile  
 245 250 255  
 Thr Gln Val Cys His Pro His Arg Ile His Cys Gln Leu Arg Ser Val  
 260 265 270  
 Ser Gln Glu Ile His Arg Leu Ser Glu Ser Met Ala Gln Val Tyr Arg  
 275 280 285  
 Gly Ser Thr Gly Thr Gly Asp Glu Asn Ser Thr Ser Ala Thr Trp Glu  
 290 295 300  
 Glu Arg Glu Glu Ser Pro Asp Lys Pro Gly Ser Pro Cys Ala Ser Cys  
 305 310 315 320  
 Gly Leu Asp Gly His Trp Tyr Arg Ala Leu Leu Leu Glu Thr Phe Arg  
 325 330 335

Pro Gln Arg Cys Ala Gln Val Leu His Val Asp Tyr Gly Arg Lys Glu  
                  340                         345                 350  
 Leu Val Ser Cys Ser Ser Leu Arg Tyr Leu Leu Pro Glu Tyr Phe Arg  
                  355                         360                 365  
 Met Pro Val Val Thr Tyr Pro Cys Ala Leu Tyr Gly Leu Trp Asp Gly  
                  370                         375                 380  
 Gly Arg Gly Trp Ser Arg Ser Gln Val Gly Asp Leu Lys Thr Leu Ile  
                  385                         390                 395                 400  
 Leu Gly Lys Ala Val Asn Ala Lys Ile Glu Phe Tyr Cys Ser Phe Glu  
                  405                         410                 415  
 His Val Tyr Tyr Val Ser Leu Tyr Gly Glu Asp Gly Ile Asn Leu Asn  
                  420                         425                 430  
 Arg Val Phe Gly Val Gln Ser Cys Cys Leu Ala Asp Arg Val Leu Gln  
                  435                         440                 445  
 Ser Gln Ala Thr Glu Glu Glu Pro Glu Thr Ser Gln Ser Gln Ser  
                  450                         455                 460  
 Pro Ala Glu Glu Val Asp Glu Glu Ile Ser Leu Pro Ala Leu Arg Ser  
                  465                         470                 475                 480  
 Ile Arg Leu Lys Met Asn Ala Phe Tyr Asp Ala Gln Val Glu Phe Val  
                  485                         490                 495  
 Lys Asn Pro Ser Glu Phe Trp Ile Arg Leu Arg Lys His Asn Val Thr  
                  500                         505                 510  
 Phe Ser Lys Leu Met Arg Arg Met Cys Gly Phe Tyr Ser Ser Ala Ser  
                  515                         520                 525  
 Lys Leu Asp Gly Val Val Leu Lys Pro Glu Pro Asp Asp Leu Cys Cys  
                  530                         535                 540  
 Val Lys Trp Lys Glu Asn Gly Tyr Tyr Arg Ala Ile Val Thr Lys Leu  
                  545                         550                 555                 560  
 Asp Asp Lys Ser Val Asp Val Phe Leu Val Asp Arg Gly Asn Ser Glu  
                  565                         570                 575  
 Asn Val Asp Trp Tyr Asp Val Arg Met Leu Leu Pro Gln Phe Arg Gln  
                  580                         585                 590  
 Leu Pro Ile Leu Ala Val Lys Cys Thr Leu Ala Asp Ile Trp Pro Leu  
                  595                         600                 605  
 Gly Lys Thr Trp Ser Gln Glu Ala Val Ser Phe Phe Lys Lys Thr Val  
                  610                         615                 620

Leu His Lys Glu Leu Val Ile His Ile Leu Asp Lys Gln Asp His Gln  
 625 630 635 640  
 Tyr Val Ile Glu Ile Leu Asp Glu Ser Arg Thr Gly Glu Glu Asn Ile  
 645 650 655  
 Ser Lys Val Ile Ala Gln Ala Gly Tyr Ala Lys Tyr Gln Glu Phe Glu  
 660 665 670  
 Thr Lys Glu Asn Ile Leu Val Asn Ala His Ser Pro Gly His Val Ser  
 675 680 685  
 Asn His Phe Thr Thr Glu Ser Asn Lys Ile Pro Phe Ala Lys Thr Gly  
 690 695 700  
 Glu Gly Glu Gln Lys Ala Lys Arg Glu Asn Lys Thr Thr Ser Val Ser  
 705 710 715 720  
 Lys Ala Leu Ser Asp Thr Thr Val Val Thr Asn Gly Ser Thr Glu Leu  
 725 730 735  
 Val Val Gln Glu Lys Val Lys Arg Ala Ser Val Tyr Phe Pro Leu Met  
 740 745 750  
 Gln Asn Cys Leu Glu Ile Lys Pro Gly Ser Ser Ser Lys Gly Glu Leu  
 755 760 765  
 Glu Val Gly Ser Thr Val Glu Val Arg Val Ser Tyr Val Glu Asn Pro  
 770 775 780  
 Gly Tyr Phe Trp Cys Gln Leu Thr Arg Asn Ile Gln Gly Leu Lys Thr  
 785 790 795 800  
 Leu Met Ser Asp Ile Gln Tyr Tyr Cys Lys Asn Thr Ala Ala Pro His  
 805 810 815  
 Gln Arg Asn Thr Leu Ala Cys Leu Ala Lys Arg Thr Val Asn Arg Gln  
 820 825 830  
 Trp Ser Arg Ala Leu Ile Ser Gly Ile Gln Ser Val Glu His Val Asn  
 835 840 845  
 Val Thr Phe Val Asp Tyr Gly Asp Arg Glu Met Val Ser Val Lys Asn  
 850 855 860  
 Ile Tyr Ser Ile Ser Glu Glu Phe Leu Lys Val Lys Ala Gln Ala Phe  
 865 870 875 880  
 Arg Cys Ser Leu Tyr Asn Leu Ile Gln Pro Val Gly Gln Asn Pro Phe  
 885 890 895  
 Val Trp Asp Val Lys Ala Ile Gln Ala Phe Asn Glu Phe Ile Asp Asn  
 900 905 910

Ala Trp Gln Lys Asn Leu Glu Leu Lys Cys Thr Ile Phe Ala Leu Ala  
 915 920 925  
 Ser Ile Asn Glu Glu Leu Phe Asn Ile Val Asp Leu Leu Thr Pro Phe  
 930 935 940  
 Gln Ser Ala Cys His Phe Leu Val Glu Lys Arg Leu Ala Arg Pro Val  
 945 950 955 960  
 Lys Leu Gln Lys Pro Leu Glu Ser Ser Val Gln Leu His Ser Tyr Phe  
 965 970 975  
 Tyr Ser Thr His Asp Met Lys Ile Gly Ser Glu Glu Leu Val Tyr Ile  
 980 985 990  
 Thr His Ile Asp Asp Pro Trp Thr Phe Tyr Cys Gln Leu Ala Arg Asn  
 995 1000 1005  
 Ala Asn Ile Leu Glu Gln Leu Ser Cys Ser Ile Thr Gln Leu Ser Lys  
 1010 1015 1020  
 Val Leu Leu Asn Leu Lys Thr Ser Pro Leu Asn Pro Gly Thr Leu Cys  
 1025 1030 1035 1040  
 Leu Ala Lys Tyr Thr Asp Gly Asn Trp Tyr Arg Gly Ile Val Ile Glu  
 1045 1050 1055  
 Lys Glu Pro Lys Lys Val Phe Phe Val Asp Phe Gly Asn Ile Tyr Val  
 1060 1065 1070  
 Val Thr Ser Asp Asp Leu Leu Pro Ile Pro Ser Asp Ala Tyr Asp Val  
 1075 1080 1085  
 Leu Leu Leu Pro Met Gln Ala Val Arg Cys Ser Leu Ser Asp Ile Pro  
 1090 1095 1100  
 Asp His Ile Pro Glu Glu Val Val Trp Phe Gln Glu Thr Ile Leu  
 1105 1110 1115 1120  
 Asp Lys Ser Leu Lys Ala Leu Val Val Ala Lys Asp Pro Asp Gly Thr  
 1125 1130 1135  
 Leu Ile Ile Glu Leu Tyr Gly Asp Asn Ile Gln Ile Ser Ala Ser Ile  
 1140 1145 1150  
 Asn Lys Lys Leu Gly Leu Leu Ser Tyr  
 1155 1160

&lt;210&gt; 4911

&lt;211&gt; 762

<212> PRT

<213> *Homo sapiens*

4911

Met	Gly	Asp	Leu	Lys	Ser	Gly	Phe	Glu	Glu	Val	Asp	Gly	Val	Arg	Leu
1		5						10						15	
Gly	Tyr	Leu	Ile	Ile	Lys	Gly	Lys	Gln	Met	Phe	Ala	Leu	Ser	Gln	Val
			20					25					30		
Phe	Thr	Asp	Leu	Leu	Lys	Asn	Ile	Pro	Arg	Thr	Thr	Val	His	Lys	Arg
							35		40				45		
Met	Asp	His	Leu	Lys	Val	Lys	Lys	His	His	Cys	Asp	Leu	Glu	Glu	Leu
								50		55			60		
Arg	Lys	Leu	Lys	Ala	Ile	Asn	Ser	Ile	Ala	Phe	His	Ala	Ala	Lys	Cys
							65		70			75			80
Thr	Leu	Ile	Ser	Arg	Glu	Asp	Val	Glu	Ala	Leu	Tyr	Thr	Ser	Cys	Lys
							85				90			95	
Thr	Glu	Arg	Val	Leu	Lys	Thr	Lys	Arg	Arg	Arg	Val	Gly	Arg	Ala	Leu
							100			105			110		
Ala	Thr	Lys	Ala	Pro	Pro	Pro	Glu	Arg	Ala	Ala	Ala	Ser	Pro	Arg	
							115			120			125		
Pro	Gly	Phe	Trp	Lys	Asp	Lys	His	Gln	Leu	Trp	Arg	Gly	Leu	Ser	Gly
							130		135			140			
Ala	Ala	Arg	Pro	Leu	Pro	Ile	Ser	Ala	Gln	Ser	Gln	Arg	Pro	Gly	Ala
							145		150			155			160
Ala	Ala	Ala	Arg	Pro	Ala	Ala	His	Leu	Pro	Gln	Ile	Phe	Ser	Lys	Tyr
							165			170			175		
Pro	Gly	Ser	His	Tyr	Pro	Glu	Ile	Val	Arg	Ser	Pro	Cys	Lys	Pro	Pro
							180			185			190		
Leu	Asn	Tyr	Glu	Thr	Ala	Pro	Leu	Gln	Gly	Asn	Tyr	Val	Ala	Phe	Pro
							195			200			205		
Ser	Asp	Pro	Ala	Tyr	Phe	Arg	Ser	Leu	Leu	Cys	Ser	Lys	His	Pro	Ala
							210		215			220			
Ala	Ala	Ala	Ala	Gly	Ala	Thr	Cys	Leu	Glu	Arg	Phe	His	Leu	Val	Asn
							225		230			235			240
Gly	Phe	Cys	Pro	Pro	Pro	His									
							245			250			255		

His His His His Arg Ala Gln Pro Pro Gln Gln Ser His His Pro  
 260 265 270  
 Pro His His His Arg Pro Gln Pro His Leu Gly Ser Phe Pro Glu Ser  
 275 280 285  
 Cys Ser Ser Asp Ser Glu Ser Ser Ser Tyr Ser Asp His Ala Ala Asn  
 290 295 300  
 Asp Ser Asp Phe Gly Ser Ser Leu Ser Ser Ser Asn Ser Val Ser  
 305 310 315 320  
 Ser Glu Glu Glu Glu Glu Gly Glu Glu Glu Glu Glu Glu Glu  
 325 330 335  
 Glu Glu Glu Gly Ser Gly Ala Ser Asp Ser Ser Glu Val Ser  
 340 345 350  
 Ser Glu Glu Glu Asp Ser Ser Thr Glu Ser Asp Ser Ser Ser Gly Ser  
 355 360 365  
 Ser Gln Val Ser Val Gln Ser Ile Arg Phe Arg Arg Thr Ser Phe Cys  
 370 375 380  
 Lys Pro Pro Ser Val Gln Ala Gln Ala Asn Phe Leu Tyr His Leu Ala  
 385 390 395 400  
 Ser Ala Ala Ala Ala Thr Lys Pro Ala Ala Phe Glu Asp Ala Gly Arg  
 405 410 415  
 Leu Pro Asp Leu Lys Ser Ser Val Lys Ala Glu Ser Pro Ala Glu Trp  
 420 425 430  
 Asn Leu Gln Ser Trp Ala Pro Lys Ala Ser Pro Val Tyr Cys Pro Ala  
 435 440 445  
 Ser Leu Gly Ser Cys Phe Ala Glu Ile Arg Asn Asp Arg Val Ser Glu  
 450 455 460  
 Ile Thr Phe Pro His Ser Glu Ile Ser Asn Ala Val Lys Arg Thr Asp  
 465 470 475 480  
 Leu Thr Ile Asn Cys Leu Ala Glu Gly Ala Ser Ser Pro Ser Pro Lys  
 485 490 495  
 Thr Asn Asn Ala Phe Pro Gln Gln Arg Ile Leu Arg Glu Ala Arg Lys  
 500 505 510  
 Cys Leu Gln Thr Thr Pro Thr Thr His Cys Ala Asp Asn Asn Thr Ile  
 515 520 525  
 Ala Ala Arg Phe Leu Asn Asn Asp Ser Ser Gly Ala Glu Ala Asn Ser  
 530 535 540

Glu Lys Tyr Ser Lys Ile Leu His Cys Pro Glu Phe Ala Thr Asp Leu  
 545 550 555 560  
 Pro Ser Ser Gln Thr Asp Pro Glu Val Asn Ala Ala Gly Ala Ala Ala  
 565 570 575  
 Thr Lys Ala Glu Asn Pro Cys Thr Asp Thr Gly Asp Lys Thr Leu Pro  
 580 585 590  
 Phe Leu His Asn Ile Lys Ile Lys Val Glu Asp Ser Ser Ala Asn Glu  
 595 600 605  
 Glu Tyr Glu Pro His Leu Phe Thr Asn Lys Leu Lys Cys Glu Cys Asn  
 610 615 620  
 Asp Thr Lys Gly Glu Phe Tyr Ser Val Thr Glu Ser Lys Glu Glu Asp  
 625 630 635 640  
 Ala Leu Leu Thr Thr Ala Lys Glu Gly Phe Ala Cys Pro Glu Lys Glu  
 645 650 655  
 Thr Pro Ser Leu Asn Pro Leu Ala Gln Ser Gln Gly Leu Ser Cys Thr  
 660 665 670  
 Leu Gly Ser Pro Lys Pro Glu Asp Gly Glu Tyr Lys Phe Gly Ala Arg  
 675 680 685  
 Val Arg Lys Asn Tyr Arg Thr Leu Val Leu Gly Lys Arg Pro Val Leu  
 690 695 700  
 Gln Thr Pro Pro Val Lys Pro Asn Leu Lys Ser Ala Arg Ser Pro Arg  
 705 710 715 720  
 Pro Thr Gly Lys Thr Glu Thr Asn Glu Gly Thr Leu Asp Asp Phe Thr  
 725 730 735  
 Val Ile Asn Arg Arg Lys Lys Val Ala Ser Asn Val Ala Ser Ala Val  
 740 745 750  
 Lys Arg Pro Phe His Phe Met Ala Asn Lys  
 755 760

&lt;210&gt; 4912

&lt;211&gt; 619

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4912

Met Glu Gly Asp Ala Glu Thr Asn Val Leu Glu Cys Ala Asn Gln Arg  
 1 5 10 15  
 Leu Val Ile Ser Glu Thr Asp Gly Glu Ile Leu Thr Pro Gly Trp Asp  
 20 25 30  
 Thr Gln Asp Arg Met Gly Val Glu Ser Arg Thr Asn Ile Gln Glu Leu  
 35 40 45  
 Gly Asn Arg Asn Gln Arg Glu Ala Gly Gly Glu Asn Leu Pro Glu Thr  
 50 55 60  
 Gln Ala His Met Gly Glu Asn Gln Glu Gln Leu Arg Cys Lys Ile Asp  
 65 70 75 80  
 Ala Glu Thr Gln Thr Pro Glu Trp Glu Asn Gln Asp Lys Asn Gly Ser  
 85 90 95  
 Glu Asp Ala Val Glu Thr Gln Thr Phe Glu Lys Lys Asp Lys Lys Glu  
 100 105 110  
 Ala Gly Glu Glu Asp Gly Glu Glu Ile Gln Ala Gln Gly Leu Gly Lys  
 115 120 125  
 Gln Gly Gln Thr Gly Asp Glu Asn Gly Glu Glu Thr Gln Thr Pro Gln  
 130 135 140  
 Trp Glu Lys Gln Asp Gln Met Lys Gly Asp Ala Asp Val Glu Ile Gln  
 145 150 155 160  
 Met Glu Glu Gly Arg Asn Lys Asp Gln Val Gly Gln Asp Ala Ala  
 165 170 175  
 Gln Thr Gln Ser Cys Gly Arg Glu Asn Val Gly Glu Val Lys Lys Glu  
 180 185 190  
 Asn Ser Val Glu Thr Gln Ala Leu Asp Trp Gly Lys Gln Glu Cys Val  
 195 200 205  
 Gly Asn Gly Asn Val Thr Glu Ile Gln Thr Pro Arg Trp Glu Lys His  
 210 215 220  
 Asp Gln Gly Gly Ser Lys Ala Lys Lys Thr Gln Ala Ser Gly Gly  
 225 230 235 240  
 Glu Asn Gln Lys Gln Leu Ser His Glu Ile Gln Val Gly Trp Gly Asn  
 245 250 255  
 Lys Gly Leu Arg Arg Asp Glu Asp Ala Lys Glu Thr Gln Ile Ala Thr  
 260 265 270  
 Lys Lys Lys Leu Arg Glu Ile Arg Glu Lys Asp Trp Val Val Ile Gln  
 275 280 285

Ala Leu Trp Trp Gly Asn Arg Arg Gln Val Ala Ser Glu Ile Tyr Arg  
 290 295 300  
 Glu Phe Glu Ile Leu Cys Trp Glu Asn Gln Asn Trp Ile Gly Gly Glu  
 305 310 315 320  
 His Arg Ala Glu Ile Gln Ala Ser Glu Lys Arg Asp Gln Arg Lys Asp  
 325 330 335  
 Gly Cys Glu Asp Gly Thr Asn Ile Leu Ala Pro Glu Ala Glu Ile Gln  
 340 345 350  
 Glu Gln Leu Lys Gly Glu Thr Asp Val Glu Thr Gln Ser Asn Glu Pro  
 355 360 365  
 Leu Arg Glu Glu Asp Gly Thr Asp Ile Gln Ser Leu Gly Arg Arg Glu  
 370 375 380  
 Val Lys Gly Glu Asp Asp Lys Asp Thr Gln Glu Leu Gly Arg Lys Asn  
 385 390 395 400  
 Gln Gly Gln Leu Gly Asn Glu Phe Ser Gly Lys Ile His Ile Pro Lys  
 405 410 415  
 Gly Lys Asn Gln Glu His Ile Arg Gly Glu Asp Gly Ala His Thr Gln  
 420 425 430  
 Ile Ser Glu Ser Gly Asn Trp Gly Lys Leu Thr Ser Gln Ile Asp Gly  
 435 440 445  
 Glu Met His Ser Ala Glu Trp Lys Lys Asp Gln Gln Ile Gly Glu  
 450 455 460  
 Asn Gly Ala Glu Ile Gln Ile Gln Gly Lys Arg Asn Leu Arg Glu Val  
 465 470 475 480  
 Gly Gly Glu Asp Gly Val Lys Thr Trp Ala Pro Gly Lys Glu Thr Gln  
 485 490 495  
 Ser Gln Phe Arg Ser Asp Leu Gly Arg Lys Ile Leu Leu Ser Glu Trp  
 500 505 510  
 Lys Ser Gln Lys Gln Met Gly Ser Glu Asn Gly Thr Glu Ile Gln Ala  
 515 520 525  
 Pro Val Glu Arg Asn Gln Arg Glu Pro Gly Gly Glu Asp Gly Val Lys  
 530 535 540  
 Thr Gln Arg Pro Lys Arg Glu Asn Glu Asp Gln Leu Asp Ser Glu Ile  
 545 550 555 560  
 Gly Gly Ser His Ser Pro Gly Arg Arg Asn Trp Glu Leu Ile Gly Lys  
 565 570 575

Asp Val Ala Glu Asn Gln Ala Ser Glu Lys Arg Asn Gln Arg Glu Val  
 580 585 590  
 Gly Asn Glu Asp Gly Arg Met Ile Trp Arg Leu Arg Gly Lys Asn Trp  
 595 600 605  
 Arg Leu Arg Ala Lys Lys Gln Thr Val Lys Lys  
 610 615

<210> 4913

<211> 164

<212> PRT

<213> Homo sapiens

<400> 4913

Met Asn Val Leu Val Trp Glu Asp Cys Ile Ala Glu Gln Ala Glu Val  
 1 5 10 15  
 Leu His Asn Asp Ser Tyr Gly Val Ile Ile Asp Cys Ser Pro Lys Gly  
 20 25 30  
 Met Phe Ser Leu Asn Cys Thr Ser Gln Ser Ala Cys His Gly His Thr  
 35 40 45  
 Met Phe Ser Trp Ser Glu Gln Asn Gly Gln Met Val Glu Met Ile Arg  
 50 55 60  
 Ser Met Ala Arg Val Pro Ile Ile Trp Lys His Gly Gly Ile Val Ala  
 65 70 75 80  
 Pro Gln Pro Gln Met Ile Trp Pro Ala Val Gly Ala Lys His Lys Asp  
 85 90 95  
 Leu Trp Lys Leu Leu Met Ala Leu Asn Lys Ile Lys Ile Trp Glu Arg  
 100 105 110  
 Ile Lys Lys His Leu Glu Gly His Ser Arg Asn Leu Asp Ile Ala Lys  
 115 120 125  
 Leu Lys Glu Gln Ile Phe Lys Ala Ser Gln Ala His Leu Thr Leu Met  
 130 135 140  
 Pro Gly Thr Gly Val Leu Glu Gly Ala Ala Asp Gly Leu Ala Ala Ile  
 145 150 155 160  
 Asn Pro Leu Lys



210 215 220

Ser Ser Thr Ser Pro Ala Ala Gln Ala Cys Pro Ser  
225 230 235

<210> 4915

<211> 390

<212> PRT

<213> Homo sapiens

<400> 4915

Met Cys Ile Cys His Leu Pro Cys Arg Pro Val Lys Pro Asn Ile Ile  
1 5 10 15  
Gly Glu Gln Ile Thr Ser Lys Met Gly Ala His Tyr His Cys Ile Ile  
20 25 30  
Cys Ser Ala Thr Ile Thr Arg Arg Thr Asp Met Leu Gly His Val Arg  
35 40 45  
Arg His Met Asn Lys Gly Glu Thr Lys Ser Ser Tyr Ile Ala Ala Ser  
50 55 60  
Thr Ala Lys Pro Pro Lys Glu Ile Leu Lys Glu Ala Asp Thr Asp Val  
65 70 75 80  
Gln Val Cys Pro Asn Tyr Ser Ile Pro Gln Lys Thr Asp Ser Tyr Phe  
85 90 95  
Asn Pro Lys Met Lys Leu Asn Arg Gln Leu Ile Phe Cys Thr Leu Ala  
100 105 110  
Ala Leu Ala Glu Glu Arg Lys Pro Leu Glu Cys Leu Asp Ala Phe Gly  
115 120 125  
Ala Thr Gly Ile Met Gly Leu Gln Trp Ala Lys His Leu Gly Asn Ala  
130 135 140  
Val Lys Val Thr Ile Asn Asp Leu Asn Glu Asn Ser Val Thr Leu Ile  
145 150 155 160  
Gln Glu Ser Cys His Leu Asn Lys Leu Lys Val Val Val Asp Ser Lys  
165 170 175  
Glu Lys Glu Lys Ser Asp Asp Ile Leu Glu Glu Gly Glu Lys Asn Leu  
180 185 190  
Gly Asn Ile Lys Val Thr Lys Met Asp Ala Asn Val Leu Met His Leu

195	200	205
Arg Ser Phe Asp Phe Ile His Leu Asp Pro Phe Gly Thr Ser Val Asn		
210	215	220
Tyr Leu Asp Ser Ala Phe Arg Asn Ile Arg Asn Leu Gly Ile Val Ser		
225	230	235
Val Thr Ser Thr Asp Ile Ser Ser Leu Tyr Ala Lys Ala Gln His Val		
245	250	255
Ala Arg Arg His Tyr Gly Cys Asn Ile Val Arg Thr Glu Tyr Tyr Lys		
260	265	270
Glu Leu Ala Ala Arg Ile Val Val Ala Ala Val Ala Arg Ala Ala Ala		
275	280	285
Arg Cys Asn Lys Gly Ile Glu Val Leu Phe Ala Val Ala Leu Glu His		
290	295	300
Phe Val Leu Val Val Val Arg Val Leu Arg Gly Pro Thr Ser Ala Asp		
305	310	315
Glu Thr Ala Lys Lys Ile Gln Tyr Leu Ile His Cys Gln Trp Cys Glu		
325	330	335
Glu Arg Ile Phe Gln Lys Asp Gly Asn Met Val Glu Asp Tyr Ser Ala		
340	345	350
Asn Phe Val Ile Ser Tyr Thr Gly Phe Pro Phe Val Asn Arg Gln Asp		
355	360	365
Ile Arg Lys Thr His Ile Asp Ser Cys Leu Val Thr Val Met Glu Ala		
370	375	380
Cys Leu Glu Arg Gln Gln		
385	390	

<210> 4916

<211> 619

<212> PRT

<213> Homo sapiens

<400> 4916

Met Ala Arg Leu Gln Arg Arg Ala Ser Gln Arg Arg Gln Gly Gly Thr			
1	5	10	15
Trp Gly Leu Arg Val Val Gln Glu Pro Gly Gly His Leu Tyr Ile Trp			

20	25	30
Leu Ala Ser Glu Lys Ala His Glu Arg Gln Arg Ala Val His Ser Cys		
35	40	45
Met Ile Leu Leu Lys Phe Leu Asn His Asn Gly Tyr Leu Asp Pro Lys		
50	55	60
Glu Asp Phe Lys Arg Ile Gly Gln Leu Val Gly Ile Leu Gly Met Leu		
65	70	75
Cys Gln Asp Pro Asp Arg Ala Thr Gln Arg Cys Ser Leu Glu Gly Ala		
85	90	95
Ser His Leu Tyr Gln Leu Leu Met Cys His Lys Arg Glu Ala Leu Gln		
100	105	110
Ala Glu Ser Gln Ala Pro Lys Glu Leu Ser Gln Ala His Ser Asp Gly		
115	120	125
Ala Pro Leu Trp Asn Ser Arg Asp Gln Lys Ala Thr Pro Leu Gly Pro		
130	135	140
Gln Glu Met Ala Lys Asn His Ile Phe Gln Leu Cys Ser Phe Gln Val		
145	150	155
Ile Lys Asp Ile Met Gln Gln Leu Thr Leu Ala Glu Leu Ser Asp Leu		
165	170	175
Ile Trp Thr Ala Ile Asp Gly Leu Gly Ser Thr Ser Pro Phe Arg Val		
180	185	190
Gln Ala Ala Ser Glu Met Leu Leu Thr Ala Val Gln Glu His Gly Ala		
195	200	205
Lys Leu Glu Ile Val Ser Ser Met Ala Gln Ala Ile Arg Leu Arg Leu		
210	215	220
Cys Ser Val His Ile Pro Gln Ala Lys Glu Lys Thr Leu His Ala Ile		
225	230	235
Thr Leu Leu Ala Arg Ser His Thr Cys Glu Leu Val Ala Thr Phe Leu		
245	250	255
Asn Ile Ser Ile Pro Leu Asp Ser His Thr Phe Gln Leu Trp Arg Ala		
260	265	270
Leu Gly Ala Glu Gln Pro Thr Ser His Leu Val Leu Thr Thr Leu Leu		
275	280	285
Ala Cys Leu Gln Glu Arg Pro Leu Pro Thr Gly Ala Ser Asp Ser Ser		
290	295	300
Pro Cys Pro Lys Glu Lys Thr Tyr Leu Arg Leu Leu Ala Ala Met Asn		

305	310	315	320
Met Leu His Glu Leu Gln Phe Ala Arg Glu Phe Lys Gln Ala Val Gln			
325	330	335	
Glu Gly Tyr Pro Lys Leu Phe Leu Ala Leu Leu Thr Gln Met His Tyr			
340	345	350	
Val Leu Glu Leu Asn Leu Pro Ser Glu Pro Gln Pro Lys Gln Gln Ala			
355	360	365	
Gln Glu Ala Ala Val Pro Ser Pro Gln Ser Cys Ser Thr Ser Leu Glu			
370	375	380	
Ala Leu Lys Ser Leu Leu Ser Thr Thr Gly His Trp His Asp Phe Ala			
385	390	395	400
His Leu Glu Leu Gln Gly Ser Trp Glu Leu Phe Thr Thr Ile His Thr			
405	410	415	
Tyr Pro Lys Gly Val Gly Leu Leu Ala Arg Ala Met Val Gln Asn His			
420	425	430	
Cys Arg Gln Ile Pro Ala Val Leu Arg Gln Leu Leu Pro Ser Leu Gln			
435	440	445	
Ser Pro Gln Glu Arg Glu Arg Lys Val Ala Ile Leu Ile Leu Thr Lys			
450	455	460	
Phe Leu Tyr Ser Pro Val Leu Leu Glu Val Leu Pro Lys Gln Ala Ala			
465	470	475	480
Leu Thr Val Leu Ala Gln Gly Leu His Asp Pro Ser Pro Glu Val Arg			
485	490	495	
Val Leu Ser Leu Gln Gly Leu Ser Asn Ile Leu Phe His Pro Asp Lys			
500	505	510	
Glu Arg Asp Gly Ile Arg Ala Ala Ala Met Ala Leu Phe Gly Asp Leu			
515	520	525	
Val Ala Ala Met Ala Asp Arg Glu Leu Ser Gly Leu Arg Thr Gln Val			
530	535	540	
His Gln Ser Met Val Pro Leu Leu Leu His Leu Lys Asp Gln Cys Pro			
545	550	555	560
Ala Val Ala Thr Gln Ala Lys Phe Thr Phe Tyr Arg Cys Ala Val Leu			
565	570	575	
Leu Arg Trp Arg Leu Leu His Thr Leu Phe Cys Thr Leu Ala Trp Glu			
580	585	590	
Arg Gly Leu Ser Ala Arg His Phe Leu Trp Thr Cys Leu Ala Thr Pro			

595

600

605

Ser Ala Thr Thr Pro Arg Pro Cys Ser Arg Cys

610

615

&lt;210&gt; 4917

&lt;211&gt; 1103

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4917

Met His Phe Leu Ala Ala Gln Asn Gln Phe Leu His Ser Pro Phe Leu

1 5 10 15

Glu Arg Pro Met Asp Met Pro Tyr Met Ile Phe Asp Pro Asn Asn Pro  
20 25 30Leu Met Thr Gly Gln Leu Leu Gly Ser Ser Leu Thr Gln Met Pro Pro  
35 40 45Gln Ala Ser Ser Ser His Thr Thr Ala Pro Thr Thr Val Ala Ala Ser  
50 55 60Leu Lys Arg Lys Leu Asp Asp Lys Glu Asp Asn Asn Cys Ser Glu Lys  
65 70 75 80Glu Gly Gly Asn Ser Gly Glu Asp Gln His Arg Asp Lys Arg Leu Arg  
85 90 95Thr Thr Ile Thr Pro Glu Gln Leu Glu Ile Leu Tyr Glu Lys Tyr Leu  
100 105 110Leu Asp Ser Asn Pro Thr Arg Lys Met Leu Asp His Ile Ala Arg Glu  
115 120 125Val Gly Leu Lys Lys Arg Val Val Gln Val Trp Phe Gln Asn Thr Arg  
130 135 140Ala Arg Glu Arg Lys Gly Gln Phe Arg Ala Val Gly Pro Ala Gln Ser  
145 150 155 160His Lys Arg Cys Pro Phe Cys Arg Ala Leu Phe Lys Ala Lys Ser Ala  
165 170 175Leu Glu Ser His Ile Arg Ser Arg His Trp Asn Glu Gly Lys Gln Ala  
180 185 190

Gly Tyr Ser Leu Pro Pro Ser Pro Leu Ile Ser Thr Glu Asp Gly Gly  
                  195                 200                 205  
 Glu Ser Pro Gln Lys Tyr Ile Tyr Phe Asp Tyr Pro Ser Leu Pro Leu  
                  210                 215                 220  
 Thr Lys Ile Asp Leu Ser Ser Glu Asn Glu Leu Ala Ser Thr Val Ser  
                  225                 230                 235                 240  
 Thr Pro Val Ser Lys Thr Ala Glu Leu Ser Pro Lys Asn Leu Leu Ser  
                  245                 250                 255  
 Pro Ser Ser Phe Lys Ala Glu Cys Ser Glu Asp Val Glu Asn Leu Asn  
                  260                 265                 270  
 Ala Pro Pro Ala Glu Ala Gly Tyr Asp Gln Asn Lys Thr Asp Phe Asp  
                  275                 280                 285  
 Glu Thr Ser Ser Ile Asn Thr Ala Ile Ser Asp Ala Thr Thr Gly Asp  
                  290                 295                 300  
 Glu Gly Asn Thr Glu Met Glu Ser Thr Thr Gly Ser Ser Gly Asp Val  
                  305                 310                 315                 320  
 Lys Pro Ala Leu Ser Pro Lys Glu Pro Lys Thr Leu Asp Thr Leu Pro  
                  325                 330                 335  
 Lys Pro Ala Thr Thr Pro Thr Thr Glu Val Cys Asp Asp Lys Phe Leu  
                  340                 345                 350  
 Phe Ser Leu Thr Ser Pro Ser Ile His Phe Asn Asp Lys Asp Gly Asp  
                  355                 360                 365  
 His Asp Gln Ser Phe Tyr Ile Thr Asp Asp Pro Asp Asn Ala Asp  
                  370                 375                 380  
 Arg Ser Glu Thr Ser Ser Ile Ala Asp Pro Ser Ser Pro Asn Pro Phe  
                  385                 390                 395                 400  
 Gly Ser Ser Asn Pro Phe Lys Ser Lys Ser Asn Asp Arg Pro Gly His  
                  405                 410                 415  
 Lys Arg Phe Arg Thr Gln Met Ser Asn Leu Gln Leu Lys Val Leu Lys  
                  420                 425                 430  
 Ala Cys Phe Ser Asp Tyr Arg Thr Pro Thr Met Gln Glu Cys Glu Met  
                  435                 440                 445  
 Leu Gly Asn Glu Ile Gly Leu Pro Lys Arg Val Val Gln Val Trp Phe  
                  450                 455                 460  
 Gln Asn Ala Arg Ala Lys Glu Lys Lys Phe Lys Ile Asn Ile Gly Lys  
                  465                 470                 475                 480

Pro Phe Met Ile Asn Gln Gly Gly Thr Glu Gly Thr Lys Pro Glu Cys  
                   485                  490                  495  
 Thr Leu Cys Gly Val Lys Tyr Ser Ala Arg Leu Ser Ile Arg Asp His  
                   500                  505                  510  
 Ile Phe Ser Lys Gln His Ile Ser Lys Val Arg Glu Thr Val Gly Ser  
                   515                  520                  525  
 Gln Leu Asp Arg Glu Lys Asp Tyr Leu Ala Pro Thr Thr Val Arg Gln  
                   530                  535                  540  
 Leu Met Ala Gln Gln Glu Leu Asp Arg Ile Lys Lys Ala Ser Asp Val  
                   545                  550                  555                  560  
 Leu Gly Leu Thr Val Gln Gln Pro Gly Met Met Asp Ser Ser Leu  
                   565                  570                  575  
 His Gly Ile Ser Leu Pro Thr Ala Tyr Pro Gly Leu Pro Gly Leu Pro  
                   580                  585                  590  
 Pro Val Leu Leu Pro Gly Met Asn Gly Pro Ser Ser Leu Pro Gly Phe  
                   595                  600                  605  
 Pro Gln Asn Ser Asn Thr Leu Thr Pro Pro Gly Ala Gly Met Leu Gly  
                   610                  615                  620  
 Phe Pro Thr Ser Ala Thr Ser Ser Pro Ala Leu Ser Leu Ser Ser Ala  
                   625                  630                  635                  640  
 Pro Thr Lys Pro Leu Leu Gln Thr Pro Pro Pro Pro Pro Pro Pro  
                   645                  650                  655  
 Pro Pro Pro Pro Ser Ser Leu Ser Gly Gln Gln Thr Glu Gln Gln  
                   660                  665                  670  
 Asn Lys Glu Ser Glu Lys Lys Gln Thr Lys Pro Asn Lys Val Lys Lys  
                   675                  680                  685  
 Ile Lys Glu Glu Glu Leu Glu Ala Thr Lys Pro Glu Lys His Pro Lys  
                   690                  695                  700  
 Lys Glu Glu Lys Ile Ser Ser Ala Leu Ser Val Leu Gly Lys Val Val  
                   705                  710                  715                  720  
 Gly Glu Thr His Val Asp Pro Ile Gln Leu Gln Ala Leu Gln Asn Ala  
                   725                  730                  735  
 Ile Ala Gly Asp Pro Ala Ser Phe Ile Gly Gly Gln Phe Leu Pro Tyr  
                   740                  745                  750  
 Phe Ile Pro Gly Phe Ala Ser Tyr Phe Thr Pro Gln Leu Pro Gly Thr  
                   755                  760                  765

Val Gln Gly Gly Tyr Phe Pro Pro Val Cys Gly Met Glu Ser Leu Phe  
 770 775 780  
 Pro Tyr Gly Pro Thr Met Pro Gln Thr Leu Ala Gly Leu Ser Pro Gly  
 785 790 795 800  
 Ala Leu Leu Gln Gln Tyr Gln Gln Tyr Gln Gln Asn Leu Gln Glu Ser  
 805 810 815  
 Leu Gln Lys Gln Gln Lys Gln Gln Glu Gln Gln Lys Pro Ala  
 820 825 830  
 Gln Ala Lys Thr Ser Lys Val Glu Ser Asp Gln Pro Gln Asn Ser Asn  
 835 840 845  
 Asp Ala Ser Glu Thr Lys Glu Asp Lys Ser Thr Ala Thr Glu Ser Thr  
 850 855 860  
 Lys Glu Glu Pro Gln Leu Glu Ser Lys Ser Ala Asp Phe Ser Asp Thr  
 865 870 875 880  
 Tyr Val Val Pro Phe Val Lys Tyr Glu Phe Ile Cys Arg Lys Cys Gln  
 885 890 895  
 Met Met Phe Thr Asp Glu Asp Ala Ala Val Asn His Gln Lys Ser Phe  
 900 905 910  
 Cys Tyr Phe Gly Gln Pro Leu Ile Asp Pro Gln Glu Thr Val Leu Arg  
 915 920 925  
 Val Pro Val Ser Lys Tyr Gln Cys Leu Ala Cys Asp Val Ala Ile Ser  
 930 935 940  
 Gly Asn Glu Ala Leu Ser Gln His Leu Gln Ser Ser Leu His Lys Glu  
 945 950 955 960  
 Lys Thr Ile Lys Gln Ala Met Arg Asn Ala Lys Glu His Val Arg Leu  
 965 970 975  
 Leu Pro His Ser Val Cys Ser Pro Asn Pro Asn Thr Thr Ser Thr Ser  
 980 985 990  
 Gln Ser Ala Ala Ser Ser Asn Asn Thr Tyr Pro His Leu Ser Cys Phe  
 995 1000 1005  
 Ser Met Lys Ser Trp Pro Asn Ile Leu Phe Gln Ala Ser Ala Arg Arg  
 1010 1015 1020  
 Ala Ala Ser Pro Pro Ser Ser Pro Pro Ser Leu Ser Leu Pro Ser Thr  
 1025 1030 1035 1040  
 Val Thr Ser Ser Leu Cys Ser Thr Ser Gly Val Gln Thr Ser Leu Pro

1045	1050	1055
Thr Glu Ser Cys Ser Asp Glu Ser Asp Ser Glu Leu Ser Gln Lys Leu		
1060	1065	1070
Glu Asp Leu Asp Asn Ser Leu Glu Val Lys Ala Lys Pro Ala Ser Gly		
1075	1080	1085
Leu Asp Gly Asn Phe Asn Ser Ile Arg Met Asp Met Phe Ser Val		
1090	1095	1100

<210> 4918

<211> 727

<212> PRT

<213> Homo sapiens

<400> 4918

Met Gln Gln Lys Thr Lys Leu Phe Pro Gln Ala Leu Lys Tyr Ser Ile			
1	5	10	15
Pro His Leu Gly Lys Cys Met Gln Lys Gln His Leu Asn His Tyr Asn			
20	25	30	
Phe Ala Asp His Cys Tyr Asn Arg Ile Lys Leu Lys Lys Tyr His Leu			
35	40	45	
Thr Lys Cys Leu Gln Asn Lys Pro Lys Ile Ser Glu Leu Ala Arg Asn			
50	55	60	
Ile Pro Ser Arg Ser Phe Ser Cys Lys Asp Leu Gln Pro Val Lys Gln			
65	70	75	80
Glu Asn Glu Lys Pro Leu Pro Glu Asn Thr Asp Ala Phe Glu Lys Val			
85	90	95	
Arg Thr Lys Leu Glu Thr Gln Pro Gln Glu Glu Tyr Glu Ile Ile Asn			
100	105	110	
Val Glu Val Lys His Gly Gly Phe Val Tyr Tyr Gln Glu Gly Cys Cys			
115	120	125	
Leu Val Arg Ser Lys Asp Glu Glu Ala Asp Asn Asp Asn Tyr Glu Val			
130	135	140	
Leu Phe Asn Leu Glu Glu Leu Lys Leu Asp Gln Pro Phe Ile Asp Cys			
145	150	155	160
Ile Arg Val Ala Pro Asp Glu Lys Tyr Val Ala Ala Lys Ile Arg Thr			

165	170	175
Glu Asp Ser Glu Ala Ser Thr Cys Val Ile Ile Lys Leu Ser Asp Gln		
180	185	190
Pro Val Met Glu Ala Ser Phe Pro Asn Val Ser Ser Phe Glu Trp Val		
195	200	205
Lys Asp Glu Glu Asp Glu Asp Val Leu Phe Tyr Thr Phe Gln Arg Asn		
210	215	220
Leu Arg Cys His Asp Val Tyr Arg Ala Thr Phe Gly Asp Asn Lys Arg		
225	230	235
Asn Glu Arg Phe Tyr Thr Glu Lys Asp Pro Ser Tyr Phe Val Phe Leu		
245	250	255
Tyr Leu Thr Lys Asp Ser Arg Phe Leu Thr Ile Asn Ile Met Asn Lys		
260	265	270
Thr Thr Ser Glu Val Trp Leu Ile Asp Gly Leu Ser Pro Trp Asp Pro		
275	280	285
Pro Val Leu Ile Gln Lys Arg Ile His Gly Ile Leu Tyr Tyr Val Glu		
290	295	300
His Arg Asp Asp Glu Leu Tyr Ile Leu Thr Asn Val Gly Glu Pro Thr		
305	310	315
Glu Phe Lys Leu Met Arg Thr Ala Ala Asp Thr Pro Ala Ile Met Asn		
325	330	335
Trp Asp Leu Phe Phe Thr Met Lys Arg Asn Thr Lys Val Ile Asp Leu		
340	345	350
Asp Met Phe Lys Asp His Cys Val Leu Phe Leu Lys His Ser Asn Leu		
355	360	365
Leu Tyr Val Asn Val Ile Gly Leu Ala Asp Asp Ser Val Arg Ser Leu		
370	375	380
Lys Leu Pro Pro Trp Ala Cys Gly Phe Ile Met Asp Thr Asn Ser Asp		
385	390	395
Pro Lys Asn Cys Pro Phe Gln Leu Cys Ser Pro Ile Arg Pro Pro Lys		
405	410	415
Tyr Tyr Thr Tyr Lys Phe Ala Glu Gly Lys Leu Phe Glu Glu Thr Gly		
420	425	430
His Glu Asp Pro Ile Thr Lys Thr Ser Arg Val Leu Arg Leu Glu Ala		
435	440	445
Lys Ser Lys Asp Gly Lys Leu Val Pro Met Thr Val Phe His Lys Thr		

450	455	460	
Asp Ser Glu Asp Leu Gln Lys Lys Pro Leu Leu Val His Val Tyr Gly			
465	470	475	480
Ala Tyr Gly Met Asp Leu Lys Met Asn Phe Arg Pro Glu Arg Arg Val			
485	490	495	
Leu Val Asp Asp Gly Trp Ile Leu Ala Tyr Cys His Val Arg Gly Gly			
500	505	510	
Gly Glu Leu Gly Leu Gln Trp His Ala Asp Gly Arg Leu Thr Lys Lys			
515	520	525	
Leu Asn Gly Leu Ala Asp Leu Glu Ala Cys Ile Lys Thr Leu His Gly			
530	535	540	
Gln Gly Phe Ser Gln Pro Ser Leu Thr Thr Leu Thr Ala Phe Ser Ala			
545	550	555	560
Gly Gly Val Leu Ala Gly Ala Leu Cys Asn Ser Asn Pro Glu Leu Val			
565	570	575	
Arg Ala Val Thr Leu Glu Ala Pro Phe Leu Asp Val Leu Asn Thr Met			
580	585	590	
Met Asp Thr Thr Leu Pro Leu Thr Leu Glu Glu Leu Glu Trp Gly			
595	600	605	
Asn Pro Ser Ser Asp Glu Lys His Lys Asn Tyr Ile Lys Arg Tyr Cys			
610	615	620	
Pro Tyr Gln Asn Ile Lys Pro Gln His Tyr Pro Ser Ile His Ile Thr			
625	630	635	640
Ala Tyr Glu Asn Asp Glu Arg Val Pro Leu Lys Gly Ile Val Ser Tyr			
645	650	655	
Thr Glu Lys Leu Lys Glu Ala Ile Ala Glu His Ala Lys Asp Thr Gly			
660	665	670	
Glu Gly Tyr Gln Thr Pro Asn Ile Ile Leu Asp Ile Gln Pro Gly Gly			
675	680	685	
Asn His Val Ile Glu Asp Ser His Lys Lys Ile Thr Ala Gln Ile Lys			
690	695	700	
Phe Leu Tyr Glu Glu Leu Gly Leu Asp Ser Thr Ser Val Phe Glu Asp			
705	710	715	720
Leu Lys Lys Tyr Leu Lys Phe			
725			

&lt;210&gt; 4919

&lt;211&gt; 378

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4919

Met	Glu	Asp	Arg	Asp	Glu	Ser	Glu	Val	Ser	Asp	Glu	Gly	Gly	Ser	Pro
1	5							10						15	
Ile	Ser	Ser	Glu	Gly	Gln	Glu	Pro	Arg	Ala	Asp	Pro	Glu	Pro	Pro	Gly
	20						25						30		
Leu	Ala	Ala	Gly	Leu	Val	Gln	Gln	Asp	Leu	Val	Phe	Glu	Val	Glu	Thr
	35					40					45				
Pro	Ala	Val	Leu	Pro	Glu	Pro	Val	Pro	Gln	Glu	Asp	Gly	Val	Asp	Leu
	50				55			60							
Leu	Gly	Leu	His	Ser	Glu	Val	Gly	Ala	Gly	Pro	Ala	Val	Pro	Pro	Gln
	65			70			75					80			
Ala	Cys	Lys	Ala	Pro	Ser	Ser	Asn	Thr	Asp	Leu	Leu	Ser	Cys	Leu	Leu
					85			90			95				
Gly	Pro	Pro	Glu	Ala	Ala	Ser	Gln	Gly	Pro	Pro	Glu	Asp	Leu	Leu	Ser
					100			105			110				
Glu	Asp	Pro	Leu	Leu	Ala	Ser	Pro	Ala	Pro	Pro	Leu	Ser	Val	Gln	
					115			120			125				
Ser	Thr	Pro	Arg	Gly	Gly	Pro	Pro	Ala	Ala	Ala	Asp	Pro	Phe	Gly	Pro
						130		135			140				
Leu	Leu	Pro	Ser	Ser	Gly	Asn	Asn	Ser	Gln	Pro	Cys	Ser	Asn	Pro	Asp
	145				150			155			160				
Leu	Phe	Gly	Glu	Phe	Leu	Asn	Ser	Asp	Ser	Val	Thr	Val	Pro	Pro	Ser
					165			170			175				
Phe	Pro	Ser	Ala	His	Ser	Ala	Pro	Pro	Pro	Ser	Cys	Ser	Ala	Asp	Phe
					180			185			190				
Leu	His	Leu	Gly	Asp	Leu	Pro	Gly	Glu	Pro	Ser	Lys	Met	Thr	Ala	Ser
					195			200			205				
Ser	Ser	Asn	Pro	Asp	Leu	Leu	Gly	Gly	Trp	Ala	Ala	Trp	Thr	Glu	Thr
					210			215			220				
Ala	Ala	Ser	Ala	Val	Ala	Pro	Thr	Pro	Ala	Thr	Glu	Gly	Ser	Pro	Ala

225	230	235	240
Gly Phe Pro Pro Gly Gly Phe Ile Pro Lys Thr Ala Thr Thr Pro Lys			
245	250	255	
Gly Ser Ser Ser Trp Gln Thr Ser Arg Pro Pro Ala Gln Gly Ala Ser			
260	265	270	
Trp Pro Pro Gln Ala Lys Pro Pro Pro Lys Ala Cys Thr Gln Pro Arg			
275	280	285	
Pro Asn Tyr Ala Ser Asn Phe Ser Val Ile Gly Ala Arg Glu Glu Arg			
290	295	300	
Gly Val Arg Ala Pro Ser Phe Gly Glu Ser Pro Thr Leu Cys Cys Cys			
305	310	315	320
Gly Val Cys Arg Asp Leu Pro Glu Leu Ala Lys Gly Arg Thr Tyr Val			
325	330	335	
Val Phe Phe Ile Ser Glu Pro Ser Pro Gly Thr Gly Thr Ala Lys Pro			
340	345	350	
Leu Arg Glu Arg Arg Gly Phe Arg Cys Val Phe Thr Gly Leu Ser Leu			
355	360	365	
Gly Gln Ala Ser Gly Ser Leu Leu Phe Gln			
370	375		

<210> 4920

<211> 168

<212> PRT

<213> Homo sapiens

<400> 4920

Met	Glu	Glu	Ile	Arg	Phe	Pro	Arg	Thr	Leu	Gly	Pro	Glu	Ala	Lys	Ser
1			5			10			15						
Leu Leu Ser Gly Leu Leu Lys Lys Asp Pro Lys Gln Arg Leu Gly Gly															
	20			25			30								
Gly Ser Glu Asp Ala Lys Glu Ile Met Gln His Arg Phe Phe Ala Gly															
	35			40			45								
Ile Val Trp Gln His Val Tyr Glu Lys Lys Val Arg Leu Leu Pro Ala															
	50			55			60								
Tyr Ser Arg Ala Arg Met Leu Pro Thr Tyr Pro His Ser Arg Met His															

65	70	75	80
Val Ala Arg Ser Pro Asp Phe Pro His Thr Arg Pro His Leu Arg Ser			
85	90	95	
Leu Leu Gln Ser Trp Tyr Lys Glu Gly Leu Ala Ala Pro Thr Ser Ala			
100	105	110	
Pro Gly Ala Gln Arg Leu Trp His Cys Arg Val Pro Pro Gly Asn Trp			
115	120	125	
Pro Gly Pro His Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser			
130	135	140	
Phe Leu Leu Pro Ser Glu Val Cys His Thr Leu Ser Ala Ser Leu Gly			
145	150	155	160
Val Pro Phe Pro Asp Ala Val Gln			
165			

<210> 4921

<211> 219

<212> PRT

<213> Homo sapiens

<400> 4921

Met Val Gly Gly Arg Ser Cys Pro Leu Arg Gln Val Trp Val Gly Asn			
1	5	10	15
Lys Ser Gly Leu Leu Val Gly Ala Glu Ala Gly Gly Ser Ala Ala Asp			
20	25	30	
Gly Val Thr Pro Pro Gln Glu Cys Ile Leu Ser Gly Ile Met Ser Val			
35	40	45	
Asn Gly Lys Lys Val Leu His Met Asp Arg Asn Pro Tyr Tyr Gly Gly			
50	55	60	
Glu Ser Ser Ser Ile Thr Pro Leu Glu Glu Leu Tyr Lys Arg Phe Gln			
65	70	75	80
Leu Leu Glu Gly Pro Pro Glu Ser Met Gly Arg Gly Arg Asp Trp Asn			
85	90	95	
Val Asp Leu Ile Pro Lys Phe Leu Met Ala Asn Gly Gln Leu Val Lys			
100	105	110	

Met Leu Leu Tyr Thr Glu Val Thr Arg Tyr Leu Asp Phe Lys Val Val  
                  115                 120                 125  
 Glu Gly Ser Phe Val Tyr Lys Gly Gly Lys Ile Tyr Arg Val Pro Ser  
                  130                 135                 140  
 Thr Glu Thr Glu Ala Leu Ala Ser Asn Leu Met Gly Met Phe Glu Lys  
                  145                 150                 155                 160  
 Arg Arg Phe Arg Lys Phe Leu Val Phe Val Ala Asn Phe Asp Glu Asn  
                  165                 170                 175  
 Asp Pro Lys Thr Phe Glu Gly Val Asp Pro Gln Thr Thr Ser Met Arg  
                  180                 185                 190  
 Asp Val Tyr Arg Lys Phe Asp Leu Gly Gln Asp Val Ile Asp Phe Thr  
                  195                 200                 205  
 Gly His Ala Leu Ala Leu Tyr Arg Thr Asp Glu  
                  210                 215

&lt;210&gt; 4922

&lt;211&gt; 419

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4922

Met Leu Arg Cys Phe His Ser Lys Gly Val Asn Tyr Ile Asn Phe Ser  
          1                 5                 10                 15  
 Ala Thr Gly Lys Leu Leu Val Ser Val Gly Val Asp Pro Glu His Thr  
          20                 25                 30  
 Ile Thr Val Trp Arg Trp Gln Glu Gly Ala Lys Val Ala Ser Arg Gly  
          35                 40                 45  
 Gly His Leu Glu Arg Ile Phe Val Val Glu Phe Arg Pro Asp Ser Asp  
          50                 55                 60  
 Thr Gln Phe Val Ser Val Gly Val Lys His Met Lys Phe Trp Thr Leu  
          65                 70                 75                 80  
 Ala Gly Ser Ala Leu Leu Tyr Lys Lys Gly Val Ile Gly Ser Leu Gly  
          85                 90                 95  
 Ala Ala Lys Met Gln Thr Met Leu Ser Val Ala Phe Gly Ala Asn Asn  
          100                 105                 110

Leu Thr Phe Thr Gly Ala Ile Asn Gly Asp Val Tyr Val Trp Lys Asp  
                  115                 120                 125  
 His Phe Leu Ile Arg Leu Val Ala Lys Ala His Thr Gly Pro Val Phe  
                  130                 135                 140  
 Thr Met Tyr Thr Thr Leu Arg Asp Gly Leu Ile Val Thr Gly Gly Lys  
                  145                 150                 155                 160  
 Glu Arg Pro Thr Lys Glu Gly Gly Ala Val Lys Leu Trp Asp Gln Glu  
                  165                 170                 175  
 Met Lys Arg Cys Arg Ala Phe Gln Leu Glu Thr Gly Gln Leu Val Glu  
                  180                 185                 190  
 Cys Val Arg Ser Val Cys Arg Gly Lys Gly Lys Ile Leu Val Gly Thr  
                  195                 200                 205  
 Lys Asp Gly Glu Ile Ile Glu Val Gly Glu Lys Asn Ala Ala Ser Asn  
                  210                 215                 220  
 Ile Leu Ile Asp Gly His Met Glu Gly Glu Ile Trp Gly Leu Ala Thr  
                  225                 230                 235                 240  
 His Pro Ser Lys Asp Leu Phe Ile Ser Ala Ser Asn Asp Gly Thr Ala  
                  245                 250                 255  
 Arg Ile Trp Asp Leu Ala Asp Lys Lys Leu Leu Asn Lys Val Ser Leu  
                  260                 265                 270  
 Gly His Ala Ala Arg Cys Ala Ala Tyr Ser Pro Asp Gly Glu Met Val  
                  275                 280                 285  
 Ala Ile Gly Met Lys Asn Gly Glu Phe Val Ile Leu Leu Val Asn Ser  
                  290                 295                 300  
 Leu Lys Val Trp Gly Lys Lys Arg Asp Arg Lys Ser Ala Ile Gln Asp  
                  305                 310                 315                 320  
 Ile Arg Ile Ser Pro Asp Asn Arg Phe Leu Ala Val Gly Ser Ser Glu  
                  325                 330                 335  
 His Thr Val Asp Phe Tyr Asp Leu Thr Gln Gly Thr Asn Leu Asn Arg  
                  340                 345                 350  
 Ile Gly Tyr Cys Lys Asp Ile Pro Ser Phe Val Ile Gln Met Asp Phe  
                  355                 360                 365  
 Ser Ala Asp Gly Glu Tyr Ile Gln Met Gln Leu Thr Leu Val Gly  
                  370                 375                 380  
 Asn His Thr Gln Arg Thr Ala Ile Leu Gly Leu Trp Lys Ile Ala Arg  
                  385                 390                 395                 400

Lys Trp Met Arg Arg Lys Met Gly Lys Trp Pro Ala Val Val Val Met  
 405 410 415  
 Gly Trp Pro

<210> 4923

<211> 699

<212> PRT

<213> Homo sapiens

<400> 4923

Met Asn Thr Phe Gln Ala Ser Val Ser Phe Gln Asp Val Thr Val Glu  
 1 5 10 15  
 Phe Ser Gln Glu Glu Trp Gln His Met Gly Pro Val Glu Arg Thr Leu  
 20 25 30  
 Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser His Leu Val Ser Val Gly  
 35 40 45  
 Tyr Cys Phe Thr Lys Pro Glu Leu Ile Phe Thr Leu Glu Gln Gly Glu  
 50 55 60  
 Asp Pro Trp Leu Leu Glu Lys Glu Lys Gly Phe Leu Ser Arg Asn Ser  
 65 70 75 80  
 Pro Glu Asp Ser Gln Pro Asp Glu Ile Ser Glu Lys Ser Pro Glu Asn  
 85 90 95  
 Gln Gly Lys His Leu Leu Gln Val Leu Phe Thr Asn Lys Leu Leu Thr  
 100 105 110  
 Thr Glu Gln Glu Ile Ser Gly Lys Pro His Asn Arg Asp Ile Asn Ile  
 115 120 125  
 Phe Arg Ala Arg Met Met Pro Cys Lys Cys Asp Ile Ala Gly Ser Ala  
 130 135 140  
 Cys Gln Gly Leu Ser Leu Met Ala Pro His Cys Gln Tyr Ser Lys Glu  
 145 150 155 160  
 Lys Ala His Glu Arg Asn Val Cys Asp Lys Trp Leu Ile Ser Ile Lys  
 165 170 175  
 Asp Gly Arg Thr Asn Thr Gln Glu Lys Ser Phe Ala Tyr Ser Lys Ile  
 180 185 190

Val Lys Thr Leu His His Lys Glu Glu Val Ile Gln His Gln Thr Ile  
 195 200 205  
 Gln Thr Leu Gly Gln Asp Phe Glu Tyr Asn Glu Ser Arg Lys Ala Phe  
 210 215 220  
 Leu Glu Lys Ala Ala Leu Val Thr Ser Asn Ser Thr His Pro Lys Gly  
 225 230 235 240  
 Lys Ser Tyr Asn Phe Asn Lys Phe Gly Glu Asn Lys Tyr Asp Lys Ser  
 245 250 255  
 Thr Phe Ile Ile Pro Gln Asn Met Asn Pro Glu Lys Ser His Tyr Glu  
 260 265 270  
 Phe Asn Asp Thr Gly Asn Cys Phe Cys Arg Ile Thr His Lys Thr Leu  
 275 280 285  
 Thr Gly Gly Lys Ser Phe Ser Gln Lys Ser His Ile Arg Glu His His  
 290 295 300  
 Arg Val His Ile Gly Val Lys Pro Phe Glu Tyr Gly Lys Ser Phe Asn  
 305 310 315 320  
 Arg Asn Ser Thr Leu Pro Val His Gln Arg Thr His Ala Thr Asp Lys  
 325 330 335  
 Tyr Ser Asp Tyr His Pro Cys Thr Glu Thr Phe Ser Tyr Gln Ser Thr  
 340 345 350  
 Phe Ser Val His Gln Lys Val His Ile Arg Ala Lys Pro Tyr Glu Tyr  
 355 360 365  
 Asn Glu Cys Gly Lys Ser Cys Ser Met Asn Ser His Leu Ile Trp Pro  
 370 375 380  
 Gln Lys Ser His Thr Gly Glu Lys Pro Tyr Glu Cys Pro Glu Cys Gly  
 385 390 395 400  
 Lys Ala Phe Ser Glu Lys Ser Arg Leu Arg Lys His Gln Arg Thr His  
 405 410 415  
 Thr Gly Glu Lys Pro Tyr Lys Cys Asp Gly Cys Asp Lys Ala Phe Ser  
 420 425 430  
 Ala Lys Ser Gly Leu Arg Ile His Gln Arg Thr His Thr Gly Glu Lys  
 435 440 445  
 Pro Phe Glu Cys His Glu Cys Gly Lys Ser Phe Asn Tyr Lys Ser Ile  
 450 455 460  
 Leu Ile Val His Gln Arg Thr His Thr Gly Glu Lys Pro Phe Glu Cys  
 465 470 475 480

Asn Glu Cys Gly Lys Ser Phe Ser His Met Ser Gly Leu Arg Asn His  
                   485                  490                  495  
 Arg Arg Thr His Thr Gly Glu Arg Pro Tyr Lys Cys Asp Glu Cys Gly  
                   500                  505                  510  
 Lys Ala Phe Lys Leu Lys Ser Gly Leu Arg Lys His His Arg Thr His  
                   515                  520                  525  
 Thr Gly Glu Lys Pro Tyr Lys Cys Asn Gln Cys Gly Lys Ala Phe Gly  
                   530                  535                  540  
 Gln Lys Ser Gln Leu Arg Gly His His Arg Ile His Thr Gly Glu Lys  
                   545                  550                  555                  560  
 Pro Tyr Lys Cys Asn His Cys Gly Glu Ala Phe Ser Gln Lys Ser Asn  
                   565                  570                  575  
 Leu Arg Val His His Arg Thr His Thr Gly Glu Lys Pro Tyr Gln Cys  
                   580                  585                  590  
 Glu Glu Cys Gly Lys Thr Phe Arg Gln Lys Ser Asn Leu Arg Gly His  
                   595                  600                  605  
 Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly  
                   610                  615                  620  
 Lys Ala Phe Ser Glu Lys Ser Val Leu Arg Lys His Gln Arg Thr His  
                   625                  630                  635                  640  
 Thr Gly Glu Lys Pro Tyr Asn Cys Asn Gln Cys Gly Glu Ala Phe Ser  
                   645                  650                  655  
 Gln Lys Ser Asn Leu Arg Val His Gln Arg Thr His Thr Gly Glu Lys  
                   660                  665                  670  
 Pro Tyr Lys Cys Asp Lys Cys Gly Arg Thr Phe Ser Gln Lys Ser Ser  
                   675                  680                  685  
 Leu Arg Glu His Gln Lys Ala His Pro Gly Asp  
                   690                  695

<210> 4924

<211> 319

<212> PRT

<213> Homo sapiens

<400> 4924

Met Glu Tyr Pro Ala Pro Ala Thr Val Gln Ala Ala Asp Gly Gly Ala  
 1 5 10 15  
 Ala Gly Pro Tyr Ser Ser Ser Glu Leu Leu Glu Gly Gln Glu Pro Asp  
 20 25 30  
 Gly Val Arg Phe Asp Arg Glu Arg Ala Arg Arg Leu Trp Glu Ala Val  
 35 40 45  
 Ser Gly Ala Gln Pro Val Gly Arg Glu Glu Ala Gln Phe Phe Pro His  
 50 55 60  
 Ser Arg Thr Val Ile Pro Ile Leu Val Leu Ser Glu Thr Tyr Ser Leu  
 65 70 75 80  
 Cys His Pro Val Glu His Met Ile Gln Lys Asn Gln Cys Leu Phe Thr  
 85 90 95  
 Asn Thr Gln Cys Lys Val Cys Cys Ala Leu Leu Ile Ser Glu Ser Gln  
 100 105 110  
 Lys Leu Ala His Tyr Gln Ser Lys Lys His Ala Asn Lys Val Lys Arg  
 115 120 125  
 Tyr Leu Ala Ile His Gly Met Glu Thr Leu Lys Gly Glu Thr Lys Lys  
 130 135 140  
 Leu Asp Ser Asp Gln Lys Ser Ser Arg Ser Lys Asp Lys Asn Gln Cys  
 145 150 155 160  
 Cys Pro Ile Cys Asn Met Thr Phe Ser Ser Pro Val Val Ala Gln Ser  
 165 170 175  
 His Tyr Leu Gly Lys Thr His Ala Lys Asn Leu Lys Leu Lys Gln Gln  
 180 185 190  
 Ser Thr Lys Val Glu Ala Leu His Gln Asn Arg Glu Met Ile Asp Pro  
 195 200 205  
 Asp Lys Phe Cys Ser Leu Cys His Ala Thr Phe Asn Asp Pro Val Met  
 210 215 220  
 Ala Gln Gln His Tyr Val Gly Lys Lys His Arg Lys Gln Glu Thr Lys  
 225 230 235 240  
 Leu Lys Leu Met Ala Arg Tyr Gly Arg Leu Ala Asp Pro Ala Val Thr  
 245 250 255  
 Asp Phe Pro Ala Gly Lys Gly Tyr Pro Cys Lys Thr Cys Lys Ile Val  
 260 265 270  
 Leu Asn Ser Ile Glu Gln Tyr Gln Ala His Val Ser Gly Phe Lys His

275	280	285
Lys Asn Gln Ser Pro Lys Thr Val Ala Ser Ser Leu Gly Gln Ile Pro		
290	295	300
Met Gln Arg Gln Pro Ile Gln Lys Asp Ser Thr Thr Leu Glu Asp		
305	310	315

<210> 4925

<211> 458

<212> PRT

<213> Homo sapiens

<400> 4925

Met Glu Ser Asn Phe Asn Thr Glu Ser Ser Ser Thr Phe Thr Leu Gln			
1	5	10	15
Ser Ser Ser Glu Thr Leu Phe Ser Ile Gln Leu Leu Asp Phe Lys Thr			
20	25	30	
Ser Leu Leu Glu Ala Leu Glu Glu Leu Arg Met Arg Arg Glu Ala Glu			
35	40	45	
Ile His Tyr Glu Glu Gln Ile Gly Lys Ile Ile Val Glu Thr Gln Glu			
50	55	60	
Leu Lys Trp Gln Lys Glu Thr Leu Gln Asn Gln Lys Glu Thr Leu Ala			
65	70	75	80
Glu Gln His Lys Glu Ala Met Ala Val Phe Lys Lys Gln Leu Gln Met			
85	90	95	
Lys Met Cys Ala Leu Glu Glu Lys Gly Lys Tyr Gln Leu Ala Thr			
100	105	110	
Glu Ile Lys Glu Lys Glu Ile Glu Gly Leu Lys Glu Thr Leu Lys Ala			
115	120	125	
Leu Gln Val Ser Lys Tyr Ser Leu Gln Lys Lys Val Ser Glu Met Glu			
130	135	140	
Gln Lys Val Gln Leu His Leu Leu Ala Lys Glu Asp Tyr His Lys Gln			
145	150	155	160
Leu Ser Glu Ile Glu Lys Tyr Tyr Ala Thr Ile Thr Gly Gln Phe Gly			
165	170	175	

Leu Val Lys Glu Asn His Glu Lys Leu Glu Gln Asn Val Arg Glu Ala  
                  180                         185                 190  
 Ile Gln Ser Asn Lys Arg Leu Ser Ala Leu Asn Lys Lys Gln Glu Ala  
                  195                         200                 205  
 Glu Ile Cys Ser Leu Lys Lys Glu Leu Lys Lys Ala Ala Ser Asp Leu  
                  210                         215                 220  
 Ile Lys Ser Lys Val Thr Cys Gln Tyr Lys Met Gly Glu Glu Asn Ile  
                  225                         230                 235                 240  
 Asn Leu Thr Ile Lys Glu Gln Lys Phe Gln Glu Leu Gln Glu Arg Leu  
                  245                         250                 255  
 Asn Met Glu Leu Glu Leu Asn Glu Lys Ile Asn Glu Glu Ile Thr His  
                  260                         265                 270  
 Ile Gln Glu Glu Lys Gln Asp Ile Ile Ile Ser Phe Gln His Met Gln  
                  275                         280                 285  
 Gln Leu Leu Arg Gln Gln Ile Gln Ala Asn Thr Glu Met Glu Ala Glu  
                  290                         295                 300  
 Leu Lys Val Leu Lys Glu Asn Asn Gln Thr Leu Glu Arg Asp Asn Glu  
                  305                         310                 315                 320  
 Leu Gln Arg Glu Lys Val Lys Glu Asn Glu Glu Lys Phe Leu Asn Leu  
                  325                         330                 335  
 Gln Asn Glu His Glu Lys Ala Leu Gly Thr Trp Lys Arg His Ala Glu  
                  340                         345                 350  
 Glu Leu Asn Gly Glu Ile Asn Lys Ile Lys Asn Glu Leu Ser Ser Leu  
                  355                         360                 365  
 Lys Glu Thr His Ile Glu Leu Gln Glu His Tyr Asn Lys Leu Cys Asn  
                  370                         375                 380  
 Gln Lys Thr Phe Glu Glu Asp Lys Lys Phe Gln Asn Val Pro Glu Val  
                  385                         390                 395                 400  
 Asn Asn Glu Asn Ser Glu Met Ser Thr Glu Lys Ser Glu Asn Thr Ile  
                  405                         410                 415  
 Ile Gln Lys Tyr Asn Thr Glu Gln Glu Ile Arg Glu Glu Asn Met Glu  
                  420                         425                 430  
 Asn Phe Cys Ser Asp Thr Glu Tyr Arg Glu Lys Glu Glu Lys Lys Arg  
                  435                         440                 445  
 Arg Leu Ile Tyr Arg Gly Asn Asn Tyr Arg  
                  450                         455

&lt;210&gt; 4926

&lt;211&gt; 814

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4926

Met	Val	Lys	Gln	Thr	Ile	Gln	Ile	Phe	Ala	Arg	Val	Lys	Pro	Pro	Val
1					5				10				15		
Arg	Lys	His	Gln	Gln	Gly	Ile	Tyr	Ser	Ile	Asp	Glu	Asp	Glu	Lys	Leu
						20			25				30		
Ile	Pro	Ser	Leu	Glu	Ile	Ile	Leu	Pro	Arg	Asp	Leu	Ala	Asp	Gly	Phe
						35			40			45			
Val	Asn	Asn	Lys	Arg	Glu	Ser	Tyr	Lys	Phe	Lys	Phe	Gln	Arg	Ile	Phe
						50			55			60			
Asp	Gln	Asp	Ala	Asn	Gln	Glu	Thr	Val	Phe	Glu	Asn	Ile	Ala	Lys	Pro
						65			70			75			80
Val	Ala	Gly	Ser	Val	Leu	Ala	Gly	Tyr	Asn	Gly	Thr	Ile	Phe	Ala	Tyr
						85			90			95			
Gly	Gln	Thr	Gly	Ser	Gly	Lys	Thr	Phe	Thr	Ile	Thr	Gly	Gly	Ala	Glu
						100			105			110			
Arg	Tyr	Ser	Asp	Arg	Gly	Ile	Ile	Pro	Arg	Thr	Leu	Ser	Tyr	Ile	Phe
						115			120			125			
Glu	Gln	Leu	Gln	Lys	Asp	Ser	Ser	Lys	Ile	Tyr	Thr	Thr	His	Ile	Ser
						130			135			140			
Tyr	Leu	Glu	Ile	Tyr	Asn	Glu	Cys	Gly	Tyr	Asp	Leu	Leu	Asp	Pro	Arg
						145			150			155			160
His	Glu	Ala	Ser	Ser	Leu	Glu	Asp	Leu	Pro	Lys	Val	Thr	Ile	Leu	Glu
						165			170			175			
Asp	Pro	Asp	Gln	Asn	Ile	His	Leu	Lys	Asn	Leu	Thr	Leu	His	Gln	Ala
						180			185			190			
Thr	Thr	Glu	Glu	Glu	Ala	Leu	Asn	Leu	Leu	Phe	Leu	Gly	Asp	Thr	Asn
						195			200			205			
Arg	Met	Ile	Ala	Glu	Thr	Pro	Met	Asn	Gln	Ala	Ser	Thr	Arg	Ser	His
						210			215			220			

Cys Ile Phe Thr Ile His Leu Ser Ser Lys Glu Pro Gly Ser Ala Thr  
 225 230 235 240  
 Val Arg His Ala Lys Leu His Leu Val Asp Leu Ala Gly Ser Glu Arg  
 245 250 255  
 Val Ala Lys Thr Gly Val Gly Gly His Leu Leu Thr Glu Ala Lys Tyr  
 260 265 270  
 Ile Asn Leu Ser Leu His Tyr Leu Glu Gln Val Ile Ile Ala Leu Ser  
 275 280 285  
 Glu Lys His Arg Ser His Ile Pro Tyr Arg Asn Ser Met Met Thr Ser  
 290 295 300  
 Val Leu Arg Asp Ser Leu Gly Gly Asn Cys Met Thr Thr Met Ile Ala  
 305 310 315 320  
 Thr Leu Ser Leu Glu Lys Arg Asn Leu Asp Glu Ser Ile Ser Thr Cys  
 325 330 335  
 Arg Phe Ala Gln Arg Val Ala Leu Ile Lys Asn Glu Ala Val Leu Asn  
 340 345 350  
 Glu Glu Ile Asn Pro Arg Leu Val Ile Lys Arg Leu Gln Lys Glu Ile  
 355 360 365  
 Gln Glu Leu Lys Asp Glu Leu Ala Met Val Thr Gly Glu Gln Arg Thr  
 370 375 380  
 Glu Ala Leu Thr Glu Ala Glu Leu Leu Gln Leu Glu Lys Leu Ile Thr  
 385 390 395 400  
 Ser Phe Leu Glu Asp Gln Asp Ser Asp Ser Arg Leu Glu Val Gly Ala  
 405 410 415  
 Asp Met Arg Lys Val His His Cys Phe His His Leu Lys Lys Leu Leu  
 420 425 430  
 Asn Asp Lys Lys Ile Leu Glu Asn Asn Thr Val Ser Ser Glu Ser Lys  
 435 440 445  
 Asp Gln Asp Cys Gln Glu Pro Leu Lys Glu Glu Glu Tyr Arg Lys Leu  
 450 455 460  
 Arg Asp Ile Leu Lys Gln Arg Asp Asn Glu Ile Asn Ile Leu Val Asn  
 465 470 475 480  
 Met Leu Lys Lys Glu Lys Lys Lys Ala Gln Glu Ala Leu His Leu Ala  
 485 490 495  
 Gly Met Asp Arg Arg Glu Phe Arg Gln Ser Gln Ser Pro Pro Phe Arg  
 500 505 510

Leu Gly Asn Pro Glu Glu Gly Gln Arg Met Arg Leu Ser Ser Ala Pro  
                   515                  520                  525  
 Ser Gln Ala Gln Asp Phe Ser Ile Leu Gly Lys Arg Ser Ser Leu Leu  
                   530                  535                  540  
 His Lys Lys Ile Gly Met Lys Glu Glu Met Ser Leu Gly Cys Gln Glu  
                   545                  550                  555                  560  
 Ala Phe Glu Ile Phe Lys Arg Asp His Ala Asp Ser Val Thr Ile Asp  
                   565                  570                  575  
 Asp Asn Lys Gln Ile Leu Lys Gln Arg Phe Ser Glu Ala Lys Ala Leu  
                   580                  585                  590  
 Gly Glu Ser Ile Asn Glu Ala Arg Ser Lys Ile Gly His Leu Lys Glu  
                   595                  600                  605  
 Glu Ile Thr Gln Arg His Ile Gln Gln Val Ala Leu Gly Ile Ser Glu  
                   610                  615                  620  
 Asn Met Ala Val Pro Leu Met Pro Asp Gln Gln Glu Glu Lys Leu Arg  
                   625                  630                  635                  640  
 Ser Gln Leu Glu Glu Glu Lys Arg Arg Tyr Lys Thr Met Phe Thr Arg  
                   645                  650                  655  
 Leu Lys Ala Leu Lys Val Glu Ile Glu His Leu Gln Leu Leu Met Asp  
                   660                  665                  670  
 Lys Ala Lys Val Lys Leu Gln Lys Glu Phe Glu Val Trp Trp Ala Glu  
                   675                  680                  685  
 Glu Ala Thr Asn Leu Gln Val Asn Ser Pro Ala Val Asn Ser Leu Asp  
                   690                  695                  700  
 His Thr Lys Pro Phe Leu Gln Thr Ser Asp Phe Gln His Glu Arg Ser  
                   705                  710                  715                  720  
 Gln Leu Leu Ser Asn Lys Ser Ser Gly Gly Trp Glu Val Gln Asp Gln  
                   725                  730                  735  
 Gly Thr Gly Arg Phe Asp Val Cys Asp Val Asn Ala Arg Lys Ile Leu  
                   740                  745                  750  
 Pro Ser Pro Cys Pro Ser Pro His Ser Gln Lys Gln Ser Ser Thr Ser  
                   755                  760                  765  
 Thr Pro Leu Gly Asp Ser Ile Pro Lys Arg Pro Val Ser Ser Ile Pro  
                   770                  775                  780  
 Leu Thr Gly Asp Ser Gln Thr Asp Ser Asp Ile Ile Ala Phe Ile Lys  
                   785                  790                  795                  800

Ala Arg Gln Ser Ile Leu Gln Lys Gln Cys Leu Gly Ser Asn  
 805 810

<210> 4927

<211> 503

<212> PRT

<213> Homo sapiens

<400> 4927

Met Gly Ala Leu Thr Phe Arg Asp Val Ala Ile Glu Phe Ser Leu Glu  
 1 5 10 15  
 Glu Trp Gln Cys Leu Asp Thr Glu Gln Gln Asn Leu Tyr Arg Asn Val  
 20 25 30  
 Met Leu Asp Asn Tyr Arg Asn Leu Val Phe Leu Gly Ile Ala Val Ser  
 35 40 45  
 Lys Pro Asp Leu Ile Thr Cys Leu Glu Gln Glu Lys Glu Pro Trp Asn  
 50 55 60  
 Leu Lys Thr His Asp Met Val Ala Lys Pro Pro Val Ile Cys Ser His  
 65 70 75 80  
 Ile Ala Gln Asp Leu Trp Pro Glu Gln Gly Ile Lys Asp Tyr Phe Gln  
 85 90 95  
 Glu Val Ile Leu Arg Gln Tyr Lys Lys Cys Arg His Glu Asn Leu Leu  
 100 105 110  
 Leu Arg Lys Gly Cys Lys Asn Val Asp Glu Phe Lys Met His Lys Lys  
 115 120 125  
 Gly Tyr Asn Arg His Asn Gln Cys Leu Thr Thr Ser His Ser Lys Ile  
 130 135 140  
 Phe Gln Cys Asp Lys Tyr Val Lys Val Phe His Lys Phe Ser Asn Ser  
 145 150 155 160  
 Asn Arg His Lys Ile Arg His Thr Ser Lys Lys Pro Phe Lys Cys Lys  
 165 170 175  
 Glu Cys Gly Lys Leu Phe Cys Ile Leu Ser His Leu Ala Gln His Lys  
 180 185 190  
 Lys Ile His Thr Gly Glu Lys Ser Tyr Lys Cys Glu Glu Tyr Gly Lys  
 195 200 205

Ala Phe Asn Glu Ser Ser Asn Cys Thr Thr His Lys Arg Ile Thr Glu  
 210 215 220  
 Lys Lys Pro Tyr Lys Cys Lys Glu Cys Gly Lys Ala Phe Asn Trp Phe  
 225 230 235 240  
 Ser His Phe Thr Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr  
 245 250 255  
 Gln Cys Glu Lys Cys Gly Lys Phe Phe Asn Gln Ser Thr Asn Leu Thr  
 260 265 270  
 Thr His Lys Arg Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu  
 275 280 285  
 Cys Gly Lys Ala Phe Asn Gln Ser Ser Asn Leu Thr Glu His Lys Lys  
 290 295 300  
 Ile His Thr Lys Glu Gln Pro Tyr Lys Cys Glu Lys Cys Gly Lys Ala  
 305 310 315 320  
 Phe Lys Trp Ser Ser Thr Leu Thr Lys His Lys Arg Ile His Asn Gly  
 325 330 335  
 Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Lys Ala Phe Asn Arg Ser  
 340 345 350  
 Ser Thr Leu Asn Arg His Lys Ile Thr His Thr Gly Gly Lys Pro Tyr  
 355 360 365  
 Lys Tyr Lys Glu Cys Gly Lys Ala Phe Asn Gln Ser Ser Thr Leu Thr  
 370 375 380  
 Ile His Lys Ile Ile His Thr Val Glu Lys Phe Tyr Lys Cys Glu Glu  
 385 390 395 400  
 Cys Gly Lys Ala Phe Ser Arg Ile Ser His Leu Thr Thr His Lys Arg  
 405 410 415  
 Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Glu Glu Cys Gly Arg Ala  
 420 425 430  
 Phe Asn Gln Ser Ser Thr Leu Thr Thr His Lys Arg Ile His Thr Gly  
 435 440 445  
 Glu Lys Pro Tyr Glu Cys Glu Glu Cys Gly Lys Ala Phe Asn Arg Ser  
 450 455 460  
 Ser Thr Leu Thr Thr His Lys Ile Ile His Ser Gly Glu Lys Ile Tyr  
 465 470 475 480  
 Lys Cys Lys Glu Cys Gly Lys Ala Phe Arg Arg Phe Ser His Leu Thr  
 485 490 495

Arg His Lys Thr Ile His Thr

500

<210> 4928

<211> 388

<212> PRT

<213> Homo sapiens

<400> 4928

Met	Leu	Leu	Lys	Glu	Lys	Glu	Asp	Ser	Leu	Met	Thr	Cys	Gln	Gln	Ile
1															15
Tyr	Lys	Ala	Leu	Gln	Glu	Glu	Leu	Thr	Val	Lys	Glu	Lys	Gln	Glu	Glu
	20							25							30
Asp	Ile	Lys	Arg	Arg	Ile	Asn	Leu	Ala	Glu	Asn	Glu	Leu	Glu	Ile	Thr
	35							40							45
Lys	Thr	Leu	Leu	Asn	Gln	Thr	Arg	Glu	Glu	Val	Leu	Thr	Leu	Lys	Asn
	50							55							60
Glu	Arg	Glu	Leu	Met	Leu	Ile	Ser	His	Gln	Lys	Ser	Ile	Glu	Gln	Leu
	65														80
Gln	Glu	Thr	Leu	Arg	Gln	Lys	Leu	Leu	Ser	Asp	Asp	Asn	Trp	Lys	Glu
	85														95
Lys	Ile	Glu	Ala	Glu	Leu	Ala	Lys	Glu	Arg	Ala	Gln	His	Leu	Val	Glu
	100							105							110
Phe	Glu	Glu	Gln	Ala	Leu	Leu	Phe	Lys	Glu	Glu	Thr	Lys	Leu	Gln	Leu
	115							120							125
Asp	Ile	Glu	Lys	Glu	Lys	His	Gln	Asp	Val	Ile	Gln	Lys	Tyr	Lys	Lys
	130							135							140
Glu	Gln	Glu	Glu	Leu	Gln	Met	Lys	Ile	Ser	Asp	Leu	Ile	Thr	Gly	Ala
	145														160
Thr	Arg	Asp	Leu	Arg	Gln	Glu	Val	Thr	Thr	Leu	Lys	Glu	Lys	Leu	His
	165														175
Lys	Ser	His	Thr	Arg	Tyr	Thr	Glu	Glu	Ser	Asn	Ser	Lys	Glu	Lys	Glu
	180							185							190
Ile	Glu	Asn	Leu	Lys	Asn	Leu	Val	Ala	Glu	Phe	Glu	Ser	Arg	Leu	Lys
	195							200							205

Lys Glu Ile Asp Ser Asn Asp Ser Val Ser Glu Asn Leu Arg Lys Glu  
 210 215 220  
 Met Glu Gln Lys Ser Asp Glu Leu Lys Arg Val Met Leu Ala Gln Thr  
 225 230 235 240  
 Gln Leu Ile Glu Gln Phe Asn Gln Ser Gln Glu Glu Asn Thr Phe Leu  
 245 250 255  
 Gln Glu Thr Val Arg Arg Glu Cys Glu Glu Arg Phe Glu Leu Thr Glu  
 260 265 270  
 Ala Leu Ser Gln Ala Arg Glu Gln Leu Leu Glu Leu Ser Lys Leu Arg  
 275 280 285  
 Gly Ser Leu Pro Phe Ser Pro Cys Ser Leu Ser Lys Gly Ser Leu Thr  
 290 295 300  
 Ser Pro Ala Ala Ala Val Ser Asn His Gly Glu Arg Ser Leu Ala Arg  
 305 310 315 320  
 Leu Asn Ser Glu Lys Gly Ile Gln Ile Pro Asn Leu Arg Gly Val Ser  
 325 330 335  
 Lys Pro Thr Thr Phe Pro Thr Ser Asp Lys Pro Lys Arg Val Arg Ser  
 340 345 350  
 Gly Val Pro Ile Leu Pro Gln Pro His Pro Pro Arg Gly Gly Ala Ser  
 355 360 365  
 Ser Ala Asn Glu Thr Arg Gln Arg Leu Ala Ala Ile Leu Arg Arg Arg  
 370 375 380  
 Arg Ser Gln Gln  
 385

<210> 4929

<211> 165

<212> PRT

<213> Homo sapiens

<400> 4929

Met Asp Gly Pro Ala Thr Pro Val Ser Thr Asp Ser Asn Pro Pro Thr  
 1 5 10 15  
 Gln Gln Glu Asp Arg Ser Ala Cys Lys Cys Cys Thr His Leu Glu Lys Arg  
 20 25 30

<210> 4930

211 832

<212> PRT

<213> Homo sapiens

<400> 4930

Met Ala Gly Leu Arg Tyr Ser Val Lys Val Tyr Val Leu Asn Glu Asp			
1	5	10	15
Glu Glu Trp Asn Asn Leu Gly Thr Gly Gln Val Ser Ser Thr Tyr Asp			
20	25	30	
Glu Gln Phe Gln Gly Met Ser Leu Leu Val Arg Ser Asp Ser Asp Gly			
35	40	45	
Ser Val Ile Leu Arg Ser Gln Ile Pro Pro Asp Arg Pro Tyr Gly Lys			
50	55	60	
Tyr Gln Glu Thr Leu Ile Val Trp Tyr Glu Ala Glu Asn Gln Gly Leu			
65	70	75	80

Val Leu Lys Phe Gln Asp Pro Ala Gly Cys Gln Asp Ile Trp Lys Glu  
                   85                         90                         95  
 Ile Cys Gln Ala Gln Gly Lys Asp Pro Ser Ile Gln Thr Thr Val Asn  
                   100                     105                     110  
 Ile Ser Asp Glu Pro Glu Glu Asp Phe Asn Glu Met Ser Val Ile Ser  
                   115                     120                     125  
 Asn Met Val Val Leu Pro Asp Cys Glu Leu Asn Thr Leu Asp Gln Ile  
                   130                     135                     140  
 Ala Asp Ile Val Thr Ser Val Phe Ser Ser Pro Val Thr Asp Arg Glu  
                   145                     150                     155                 160  
 Arg Leu Ala Glu Ile Leu Lys Asn Glu Ala Tyr Ile Pro Lys Leu Leu  
                   165                     170                     175  
 Gln Leu Phe His Thr Cys Glu Asn Leu Glu Asn Thr Glu Gly Leu His  
                   180                     185                     190  
 His Leu Tyr Glu Ile Ile Lys Gly Ile Leu Phe Leu Asn Glu Ala Cys  
                   195                     200                     205  
 Leu Phe Glu Ile Met Phe Ser Asp Glu Cys Ile Met Asp Val Val Gly  
                   210                     215                     220  
 Cys Leu Glu Tyr Asp Pro Ala Leu Asp Gln Pro Lys Arg His Arg Asp  
                   225                     230                     235                 240  
 Phe Leu Thr Asn Asp Ala Lys Phe Lys Glu Val Ile Pro Ile Thr Asn  
                   245                     250                     255  
 Ser Glu Leu Arg Gln Lys Ile His Gln Thr Tyr Arg Leu Gln Tyr Ile  
                   260                     265                     270  
 Tyr Asp Ile Leu Leu Pro Val Pro Ser Ile Phe Glu Asp Asn Phe Leu  
                   275                     280                     285  
 Ser Thr Leu Thr Thr Phe Ile Phe Ser Asn Lys Ala Glu Ile Val Ser  
                   290                     295                     300  
 Met Leu Gln Lys Asp His Lys Phe Leu Tyr Glu Val Phe Ala Gln Leu  
                   305                     310                     315                 320  
 Lys Asp Glu Thr Thr His Asp Asp Arg Arg Cys Glu Leu Leu Phe Phe  
                   325                     330                     335  
 Phe Lys Glu Leu Cys Ser Phe Ser Gln Ala Leu Gln Pro Gln Ser Lys  
                   340                     345                     350  
 Asp Ala Leu Phe Glu Thr Leu Ile Gln Leu Gly Val Leu Pro Ala Leu  
                   355                     360                     365

Lys Ile Val Met Ile Arg Asp Asp Leu Gln Val Arg Ser Ala Ala Ala  
 370 375 380  
 Val Ile Cys Ala Tyr Leu Val Glu Tyr Ser Pro Ser Arg Ile Arg Glu  
 385 390 395 400  
 Phe Ile Ile Ser Glu Ala His Val Cys Lys Asp Ile Tyr Leu Phe Ile  
 405 410 415  
 Asn Val Ile Ile Lys Gln Met Ile Cys Asp Thr Asp Pro Glu Leu Gly  
 420 425 430  
 Gly Ala Val His Leu Met Val Val Leu His Thr Leu Leu Asp Pro Arg  
 435 440 445  
 Asn Met Leu Thr Thr Pro Glu Lys Ser Glu Arg Ser Glu Phe Leu His  
 450 455 460  
 Phe Phe Tyr Lys His Cys Met His Lys Phe Thr Ala Pro Leu Leu Ala  
 465 470 475 480  
 Ala Thr Ser Glu His Asn Cys Glu Glu Asp Asp Ile Ala Gly Tyr Asp  
 485 490 495  
 Lys Ser Lys Asn Cys Pro Asn Asp Asn Gln Thr Ala Gln Leu Leu Ala  
 500 505 510  
 Leu Ile Leu Glu Leu Leu Thr Phe Cys Ile Gln His His Thr Phe Tyr  
 515 520 525  
 Ile Arg Ser Tyr Ile Leu Asn Lys Asp Leu Leu Arg Lys Ala Leu Ile  
 530 535 540  
 Leu Met Asn Ser Lys His Thr His Leu Ile Leu Cys Val Leu Arg Phe  
 545 550 555 560  
 Met Arg Arg Met Ile Cys Leu Asn Asp Glu Ala Tyr Asn Asn Tyr Ile  
 565 570 575  
 Ile Lys Gly Asn Leu Phe Glu Pro Val Val Asn Ala Leu Leu Asp Asn  
 580 585 590  
 Gly Thr Arg Tyr Asn Met Leu Asn Ser Ala Ile Leu Glu Leu Phe Glu  
 595 600 605  
 Tyr Ile Arg Val Glu Asn Ile Lys Pro Leu Val Ser His Ile Val Glu  
 610 615 620  
 Lys Phe Tyr Asn Thr Leu Glu Ser Ile Glu Tyr Val Gln Thr Phe Lys  
 625 630 635 640  
 Gly Leu Lys Ile Lys Tyr Glu Lys Glu Arg Asp Arg Gln Ser Gln Ile  
 645 650 655

Gln Lys Asn Leu His Ser Val Leu Gln Asn Ile Val Val Phe Arg Gly  
 660 665 670  
 Thr Ile Glu Glu Ile Gly Leu Glu Glu Glu Ile Cys Phe Met Glu Asp  
 675 680 685  
 Ala Gly Glu Ala Val Met Pro Pro Leu Glu Asp Asp Asp Glu Phe Met  
 690 695 700  
 Glu Thr Lys Arg Thr Gln Glu Gly Glu Ala Val Met Pro Pro Leu Glu  
 705 710 715 720  
 Asp Asp Asp Lys Phe Thr Glu Thr Lys Arg Thr His Gln Glu Gly Glu  
 725 730 735  
 Ala Val Met Pro Pro Leu Glu Asp Asp Glu Phe Met Glu Thr Lys  
 740 745 750  
 Arg Asn Gln Glu His Glu Gly Lys Val Asp Ser Pro Lys Arg Thr Ser  
 755 760 765  
 Ser Gly Asp Phe Lys Phe Ser Ser Ser Tyr Ser Ala Cys Ala Ala Ile  
 770 775 780  
 Gly Thr Gly Ser Pro Ser Gly Ser Ser Val Val Arg Leu Val Asp His  
 785 790 795 800  
 Pro Asp Asp Glu Glu Glu Lys Glu Glu Asp Glu Glu Glu Lys Glu Glu  
 805 810 815  
 Asp Lys Glu Asp Glu Thr Ser Pro Lys Lys Lys Pro His Leu Ser Ser  
 820 825 830

&lt;210&gt; 4931

&lt;211&gt; 250

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4931

Met Phe His Gly Thr Val Thr Glu Glu Leu Thr Ser His Glu Glu Trp  
 1 5 10 15  
 Ser His Tyr Asn Glu Asn Ile Arg Glu Gly Gln Lys Asp Phe Val Phe  
 20 25 30  
 Val Lys Phe Asn Gly Leu His Leu Lys Ser Met Glu Asn Leu Gln Ser  
 35 40 45

Cys Ile Ser Leu Arg Val Cys Ile Phe Ser Asn Asn Phe Ile Thr Asp  
       50                     55                     60  
 Ile His Pro Leu Gln Ser Cys Ile Lys Leu Ile Lys Leu Asp Leu His  
       65                     70                     75                     80  
 Gly Asn Gln Ile Lys Ser Leu Pro Asn Thr Lys Phe Trp Asn Gly Leu  
       85                     90                     95  
 Lys Asn Leu Lys Leu Leu Tyr Leu His Asp Asn Gly Phe Ala Lys Leu  
       100                    105                    110  
 Lys Asn Ile Cys Val Leu Ser Ala Cys Pro Thr Leu Ile Ala Leu Thr  
       115                    120                    125  
 Met Phe Asp Cys Pro Val Ser Leu Lys Lys Gly Tyr Arg His Val Leu  
       130                    135                    140  
 Val Asn Ser Ile Trp Pro Leu Lys Ala Leu Asp His His Val Ile Ser  
       145                    150                    155                    160  
 Asp Glu Glu Ile Ile Gln Asn Trp His Leu Pro Glu Arg Phe Lys Ala  
       165                    170                    175  
 Cys Asn His Arg Leu Phe Phe Asn Phe Cys Pro Ala Leu Arg Lys Gly  
       180                    185                    190  
 Thr Thr Tyr Glu Glu Glu Ile Asn Asn Ile Lys His Ile Thr Ser Lys  
       195                    200                    205  
 Ile Asn Ala Ile Leu Ala His Asn Ser Pro Val Leu Ile Val Gln Arg  
       210                    215                    220  
 Trp Ile Arg Gly Phe Leu Val Arg Lys Asn Leu Ser Pro Val Phe Phe  
       225                    230                    235                    240  
 His Lys Lys Lys Thr Ala Gly Lys Asn Tyr  
       245                    250

<210> 4932

<211> 788

<212> PRT

<213> Homo sapiens

<400> 4932

Met Ala Cys Leu Thr His Arg Asn Glu Thr Asp Ala Arg Met Glu Phe

1

5

10

15

Tyr Ser Leu Phe His Lys Gly Asn Lys Ala Gly Val Gln Trp His Asp  
 20 25 30  
 Leu Gly Ser Leu Gln Pro Leu Pro Pro Arg Phe Lys Arg Phe Ser Cys  
 35 40 45  
 Leu Ser Leu Gln Ser Ser Trp Asp Tyr Ser Leu Ser Lys Phe Asp Glu  
 50 55 60  
 Arg Cys Cys Phe Leu Tyr Val His Asp Asn Ser Asp Asp Phe Gln Ile  
 65 70 75 80  
 Tyr Phe Ser Thr Glu Glu Gln Cys Ser Arg Phe Phe Ser Leu Val Lys  
 85 90 95  
 Glu Met Ile Thr Asn Thr Ala Gly Ser Thr Val Glu Leu Glu Gly Glu  
 100 105 110  
 Thr Asp Gly Asp Thr Leu Glu Tyr Glu Tyr Asp His Asp Ala Asn Gly  
 115 120 125  
 Glu Arg Val Val Leu Gly Lys Gly Thr Tyr Gly Ile Val Tyr Ala Gly  
 130 135 140  
 Arg Asp Leu Ser Asn Gln Val Arg Ile Ala Ile Lys Glu Ile Pro Glu  
 145 150 155 160  
 Arg Asp Ser Arg Tyr Ser Gln Pro Leu His Glu Glu Ile Ala Leu His  
 165 170 175  
 Lys Tyr Leu Lys His Arg Asn Ile Val Gln Tyr Leu Gly Ser Val Ser  
 180 185 190  
 Glu Asn Gly Tyr Ile Lys Ile Phe Met Glu Gln Val Pro Gly Gly Ser  
 195 200 205  
 Leu Ser Ala Leu Leu Arg Ser Lys Trp Gly Pro Met Lys Glu Pro Thr  
 210 215 220  
 Ile Lys Phe Tyr Thr Lys Gln Ile Leu Glu Gly Leu Lys Tyr Leu His  
 225 230 235 240  
 Glu Asn Gln Ile Val His Arg Asp Ile Lys Gly Asp Asn Val Leu Val  
 245 250 255  
 Asn Thr Tyr Ser Gly Val Val Lys Ile Ser Asp Leu Gly Thr Ser Lys  
 260 265 270  
 Arg Leu Ala Gly Val Asn Pro Cys Thr Glu Thr Phe Thr Gly Thr Leu  
 275 280 285  
 Gln Tyr Met Ala Pro Glu Ile Ile Asp Gln Gly Pro Arg Gly Tyr Gly  
 290 295 300

Ala Pro Ala Asp Ile Trp Ser Leu Gly Cys Thr Ile Ile Glu Met Ala  
 305 310 315 320  
 Thr Ser Lys Pro Pro Phe His Glu Leu Gly Glu Pro Gln Ala Ala Met  
 325 330 335  
 Phe Lys Val Gly Met Phe Lys Ile His Pro Glu Ile Pro Glu Ala Leu  
 340 345 350  
 Ser Ala Glu Ala Arg Ala Phe Ile Leu Ser Cys Phe Glu Pro Asp Pro  
 355 360 365  
 His Lys Arg Ala Thr Thr Ala Glu Leu Leu Arg Glu Gly Phe Leu Arg  
 370 375 380  
 Gln Val Asn Lys Gly Lys Lys Asn Arg Ile Ala Phe Lys Pro Ser Glu  
 385 390 395 400  
 Gly Pro Arg Gly Val Val Leu Ala Leu Pro Thr Gln Gly Glu Pro Met  
 405 410 415  
 Ala Thr Ser Ser Ser Glu His Gly Ser Val Ser Pro Asp Ser Asp Ala  
 420 425 430  
 Gln Pro Asp Ala Leu Phe Glu Arg Thr Arg Ala Pro Arg His His Leu  
 435 440 445  
 Gly His Leu Leu Ser Val Pro Asp Glu Ser Ser Ala Leu Glu Asp Arg  
 450 455 460  
 Gly Leu Ala Ser Ser Pro Glu Asp Arg Asp Gln Gly Leu Phe Leu Leu  
 465 470 475 480  
 Arg Lys Asp Ser Glu Arg Arg Ala Ile Leu Tyr Lys Ile Leu Trp Glu  
 485 490 495  
 Glu Gln Asn Gln Val Ala Ser Asn Leu Gln Glu Cys Val Ala Gln Ser  
 500 505 510  
 Ser Glu Glu Leu His Leu Ser Val Gly His Ile Lys Gln Ile Ile Gly  
 515 520 525  
 Ile Leu Arg Asp Phe Ile Arg Ser Pro Glu His Arg Val Met Ala Thr  
 530 535 540  
 Thr Ile Ser Lys Leu Lys Val Asp Leu Asp Phe Asp Ser Ser Ser Ile  
 545 550 555 560  
 Ser Gln Ile His Leu Val Leu Phe Gly Phe Gln Asp Ala Val Asn Lys  
 565 570 575  
 Ile Leu Arg Asn His Leu Ile Arg Pro His Trp Met Phe Ala Met Asp  
 580 585 590

Asn Ile Ile Arg Arg Ala Val Gln Ala Ala Val Thr Ile Leu Ile Pro  
 595 600 605  
 Glu Leu Arg Ala His Phe Glu Pro Thr Cys Glu Thr Glu Gly Val Asp  
 610 615 620  
 Lys Asp Met Asp Glu Ala Glu Glu Gly Tyr Pro Pro Ala Thr Gly Pro  
 625 630 635 640  
 Gly Gln Glu Ala Gln Pro His Gln Gln His Leu Ser Leu Gln Leu Gly  
 645 650 655  
 Glu Leu Arg Gln Glu Thr Asn Arg Leu Leu Glu His Leu Val Glu Lys  
 660 665 670  
 Glu Arg Glu Tyr Gln Asn Leu Leu Arg Gln Thr Leu Glu Gln Lys Thr  
 675 680 685  
 Gln Glu Leu Tyr His Leu Gln Leu Lys Leu Lys Ser Asn Cys Ile Thr  
 690 695 700  
 Glu Asn Pro Ala Gly Pro Tyr Gly Gln Arg Thr Asp Lys Glu Leu Ile  
 705 710 715 720  
 Asp Trp Leu Arg Leu Gln Gly Ala Asp Ala Lys Thr Ile Glu Lys Ile  
 725 730 735  
 Val Glu Glu Gly Tyr Thr Leu Ser Asp Ile Leu Asn Glu Ile Thr Lys  
 740 745 750  
 Glu Asp Leu Arg Tyr Leu Arg Leu Arg Gly Gly Leu Leu Cys Arg Leu  
 755 760 765  
 Trp Ser Ala Val Ser Gln Tyr Arg Arg Ala Gln Glu Ala Ser Glu Thr  
 770 775 780  
 Lys Asp Lys Ala  
 785

&lt;210&gt; 4933

&lt;211&gt; 266

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4933

Met Leu Ile Asn Val Ile Ser Gly Ser Ser Tyr Met Ile His Ser Thr

Gln Leu Ile Glu Asn Ala Glu Leu Arg Phe His Thr Asp Glu Gln Leu  
                  20                         25                         30  
 Met Thr Leu Phe Met Gln Leu Gln Thr Ala Val Arg Ser Arg Met His  
                  35                         40                         45  
 Pro Phe Tyr Ile Thr His Ile Arg Ala His Thr Pro Leu Pro Gly Pro  
                  50                         55                         60  
 Leu Thr Ala Gly Asn Gln Met Ala Asp Arg Leu Val Ala Thr Ala Ile  
                  65                         70                         75                         80  
 Ser Asn Ala Arg His Phe His Asn Leu Thr Arg Val Asn Ala Ser Gly  
                  85                         90                         95  
 Leu Lys Arg Arg Tyr Ser Ser Thr Arg Lys Glu Ala Lys Ala Ile Ile  
                  100                         105                         110  
 Gln Arg Cys Pro Thr Cys Gln Met Val His Ser Ser Ser Phe Thr Gly  
                  115                         120                         125  
 Gly Val Asn Pro Arg Arg Leu Glu Pro Asn Ser Leu Trp Glu Met Asp  
                  130                         135                         140  
 Val Thr His Val Pro Ser Phe Gly Arg Leu Ala Tyr Val His Ala Cys  
                  145                         150                         155                         160  
 Val Asp Thr Phe Ser Leu Trp Ala Ala Cys Gln Ser Gly Glu Ser Ser  
                  165                         170                         175  
 Ala Tyr Val Lys Arg His Leu Leu Gln Cys Phe Val Val Ile Gly Ile  
                  180                         185                         190  
 Leu Ala Ser Ile Lys Thr Asp Asn Ala Pro Gly Tyr Thr Ser Gln Ala  
                  195                         200                         205  
 Leu Ala Thr Phe Phe Ser Ile Arg Asn Ile Lys His Ile Thr Gly Ile  
                  210                         215                         220  
 Pro Tyr Asn Ser Gln Gly Gln Ala Ile Val Glu Arg Met Asn Leu Ser  
                  225                         230                         235                         240  
 Leu Lys Gln Gln Leu Gln Lys Gln Lys Gly Glu Asn Arg Asp Tyr Gly  
                  245                         250                         255  
 Thr Pro His Met Gln Leu Asn Arg Ile Ile  
                  260                         265

&lt;210&gt; 4934

&lt;211&gt; 279

<212> PRT

<213> *Homo sapiens*

〈400〉 4934

Met	Gly	Thr	Ser	Cys	Leu	Pro	Asp	Thr	Phe	Thr	Lys	Leu	Ile	Asn	Pro
1		5						10					15		
Gln	Glu	Asn	Thr	Cys	Ser	Leu	Glu	Glu	Phe	Val	Leu	Gln	Leu	Glu	Leu
			20					25				30			
Ser	Gly	Tyr	Ser	Pro	Glu	Asp	Leu	Thr	Ala	Ala	Leu	Glu	Ile	Leu	Glu
			35					40				45			
Ala	Ile	Ile	Ala	Thr	Gly	Cys	Phe	Gly	Ile	Asp	Lys	Glu	Glu	Leu	Arg
			50				55				60				
Arg	Arg	Phe	Ser	Ala	Leu	Glu	Lys	Ala	Gly	Gly	Gly	Arg	Thr	Arg	Thr
			65				70				75			80	
Phe	Ala	Asp	Cys	Ile	Gln	Ala	Leu	Leu	Glu	Gln	His	Gln	Val	Leu	Glu
			85					90				95			
Val	Gly	Gly	Asn	Thr	Ala	Arg	Leu	Val	Ala	Met	Gly	Ser	Ala	Trp	Pro
			100					105				110			
Trp	Leu	Leu	His	Ser	Val	Arg	Leu	Lys	Asp	Arg	Glu	Asp	Ala	Asp	Ile
			115					120				125			
Gln	Arg	Glu	Asp	Pro	Gln	Ala	Arg	Pro	Leu	Glu	Gly	Ser	Ser	Ser	Glu
			130				135				140				
Asp	Ser	Pro	Pro	Glu	Gly	Gln	Ala	Pro	Pro	Ser	His	Ser	Pro	Arg	Gly
			145				150				155			160	
Thr	Lys	Arg	Arg	Ala	Ser	Trp	Ala	Ser	Glu	Asn	Gly	Glu	Thr	Asp	Ala
			165					170				175			
Glu	Gly	Thr	Gln	Met	Thr	Pro	Ala	Lys	Arg	Pro	Ala	Leu	Gln	Asp	Ser
			180					185				190			
Asn	Leu	Ala	Pro	Ser	Leu	Gly	Pro	Gly	Ala	Glu	Asp	Gly	Ala	Glu	Ala
			195					200				205			
Gln	Ala	Pro	Ser	Pro	Pro	Ala	Leu	Glu	Asp	Thr	Ala	Ala	Ala	Gly	
			210					215				220			
Ala	Ala	Gln	Glu	Asp	Gln	Glu	Gly	Val	Gly	Glu	Phe	Ser	Ser	Pro	Gly
			225					230				235			240
Gln	Glu	Gln	Leu	Ser	Gly	Gln	Ala	Gln	Pro	Pro	Glu	Gly	Ser	Glu	Asp
			245						250				255		

Pro Arg Gly Thr Ala Arg Leu Val Pro His Pro Thr Ser Pro His Pro  
 260 265 270

Gly Phe Pro Ser Pro Pro Pro

275

<210> 4935

<211> 325

<212> PRT

<213> Homo sapiens

<400> 4935

Met Pro Ser Arg Ile Leu Asp Lys Glu Leu Leu Ser Gly Ile Pro Asp  
 1 5 10 15

Thr Glu Arg Leu Ser Glu Val Val Asp Asn Arg Ala Pro Gln Arg Asp  
 20 25 30

Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln  
 35 40 45

Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala  
 50 55 60

Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro Thr His  
 65 70 75 80

Arg Pro Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Asp Pro  
 85 90 95

Thr His Arg Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg  
 100 105 110

Gly Pro Arg His Arg Ala Pro Gln Arg Ser Pro Arg His Arg Ala Pro  
 115 120 125

Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg His Arg  
 130 135 140

Ala Pro Gln Arg Asp Pro Thr His Arg Ala Pro Gln Arg Gly Pro Arg  
 145 150 155 160

His Arg Ala Pro Gln Arg Gly Pro Thr His Arg Ala Pro Gln Arg Gly  
 165 170 175

Pro Arg His Arg Ala Pro Gln Arg Gly Pro Arg His Arg Ala Pro Gln  
 180 185 190

Arg Gly Pro Thr His Arg Ala Pro Gln Arg Asp Pro Gly Trp Arg Ala  
 195 200 205  
 Pro Gln Arg Gly Pro Thr His Arg Ala Pro Gln Arg Ile Leu Asp Ala  
 210 215 220  
 Glu Pro Val Ser Gly Phe Leu Asp Ala Glu Ser Leu Ser Gly Ile Leu  
 225 230 235 240  
 Val Val Glu Arg Leu Ser Gly Ile Leu Asp Ala Glu Arg Leu Ser Gly  
 245 250 255  
 Ile Leu Asp Thr Glu Arg Leu Ser Leu Val Leu His Thr Glu Arg Leu  
 260 265 270  
 Ser Gly Ile Leu Val Gly Glu Arg Leu Ser Gly Val Leu His Thr Glu  
 275 280 285  
 Arg Leu Ser Gly Ile Leu Val Gly Glu Arg Leu Ser Gly Ile Leu Asp  
 290 295 300  
 Thr Glu Arg Leu Ser Gly Ile Leu Asp Thr Glu Pro Leu Ser Glu Ser  
 305 310 315 320  
 Gln Ile His Ser Ala  
 325

<210> 4936

<211> 378

<212> PRT

<213> Homo sapiens

<400> 4936

Met Met Leu Ser Arg Lys Leu Pro Val His Val Asp Asp Pro Leu Ser  
 1 5 10 15  
 Thr Thr Leu Phe Ser Ser Gln Leu Asn Arg Arg Ile Ser Asn Met Asp  
 20 25 30  
 Asp Lys Val Tyr Lys Met Ser Arg Ala Leu Ala Glu Ile Lys Lys Arg  
 35 40 45  
 Phe Gln Lys Thr Val Thr Gln Phe Ile Asn Ser Ile Leu Leu Ala Ala  
 50 55 60  
 Gly Leu Phe Thr Ile Glu Tyr Pro Thr Lys Lys Glu Glu Glu Phe  
 65 70 75 80

Val Arg Phe Lys Met Arg Ser Arg Thr His Pro Glu Arg Leu Pro Lys  
                   85                         90                         95  
 Leu Ser Leu Tyr Ser Gly Glu Ser Leu Leu Arg Ser Gln Ser Gly His  
                   100                     105                     110  
 Leu Glu Ser Ser Ile Ala Glu Thr Leu Lys Asp Glu Pro Glu Ser Ala  
                   115                     120                     125  
 Pro Val Ser Pro Val Arg Lys Thr Thr Lys Ile His Thr Lys Ala Lys  
                   130                     135                     140  
 Val Thr Ser Arg Gly Lys Ala Arg Glu Gly Arg Ser Pro Thr Arg Trp  
                   145                     150                     155                     160  
 Ala Ala Leu Pro Ser Asp Cys Pro Leu Val Leu Arg Lys Leu Met Leu  
                   165                     170                     175  
 Lys Glu Asp Thr Arg Ala Gly Cys Lys Cys Leu Val Lys Ala Pro Leu  
                   180                     185                     190  
 Val Ser Asp Val Glu Leu Glu Arg Phe Leu Leu Ala Pro Arg Asp Pro  
                   195                     200                     205  
 Ser Gln Val Leu Val Phe Gly Ile Ile Ser Ser Gln Asn Tyr Thr Ser  
                   210                     215                     220  
 Thr Gly Gln Leu Gln Trp Leu Leu Asn Thr Leu Tyr Asn His Gln Gln  
                   225                     230                     235                     240  
 Arg Gly Arg Gly Ser Pro Cys Ile Gln Cys Arg Tyr Asp Ser Tyr Arg  
                   245                     250                     255  
 Leu Leu Gln Tyr Asp Leu Asp Ser Pro Leu Gln Glu Asp Pro Pro Leu  
                   260                     265                     270  
 Met Val Lys Lys Asn Ser Val Val Gln Gly Met Ile Leu Met Phe Ala  
                   275                     280                     285  
 Gly Gly Lys Leu Ile Phe Gly Gly Arg Val Leu Asn Gly Tyr Gly Leu  
                   290                     295                     300  
 Ser Lys Gln Asn Leu Leu Lys Gln Ile Phe Arg Ser Gln Gln Asp Tyr  
                   305                     310                     315                     320  
 Lys Met Gly Tyr Phe Leu Pro Asp Asp Tyr Lys Phe Ser Val Pro Asn  
                   325                     330                     335  
 Ser Val Leu Ser Leu Glu Asp Ser Glu Ser Val Lys Lys Ala Glu Ser  
                   340                     345                     350  
 Glu Asp Ile Gln Gly Ser Ser Ser Ser Leu Ala Leu Glu Asp Tyr Val  
                   355                     360                     365

Glu Lys Glu Leu Ser Leu Glu Ala Glu Lys

370 375

<210> 4937

<211> 455

<212> PRT

<213> Homo sapiens

<400> 4937

Met Gly Val Ile Ile Ser Gly Ser Leu Pro Pro Phe Ser Ser Pro Leu  
 1 5 10 15

Gln Val Gly Pro Val Ser Leu Leu Ala Ile Gly Val Leu Thr Val His  
 20 25 30

Cys Met Val Ile Leu Leu Asn Cys Ala Gln His Leu Ser Gln Arg Leu  
 35 40 45

Gln Lys Thr Phe Val Asn Tyr Gly Glu Ala Thr Met Tyr Gly Leu Glu  
 50 55 60

Thr Cys Pro Asn Thr Trp Leu Arg Ala His Ala Val Trp Gly Arg Trp  
 65 70 75 80

Asn Leu Ala Leu Ser Pro Arg Leu Glu Cys Ser Gly Lys Ile Ser Ala  
 85 90 95

His Cys Asn Pro His Leu Gln Gly Ser Ser Asn Ser Pro Ala Gln Ala  
 100 105 110

Ser Arg Val Ala Gly Ile Tyr Arg Tyr Thr Val Ser Phe Leu Leu Val  
 115 120 125

Ile Thr Gln Leu Gly Phe Cys Ser Val Tyr Phe Met Phe Met Ala Asp  
 130 135 140

Asn Leu Gln Gln Met Val Glu Lys Ala His Val Thr Ser Asn Ile Cys  
 145 150 155 160

Gln Pro Arg Glu Ile Leu Thr Leu Thr Pro Ile Leu Asp Ile Arg Phe  
 165 170 175

Tyr Met Leu Ile Ile Leu Pro Phe Leu Ile Leu Leu Val Phe Ile Gln  
 180 185 190

Asn Leu Lys Val Leu Ser Val Phe Ser Thr Leu Ala Asn Ile Thr Thr  
 195 200 205

Leu Gly Ser Met Ala Leu Ile Phe Glu Tyr Ile Met Glu Gly Ile Pro  
 210 215 220  
 Tyr Pro Ser Asn Leu Pro Leu Met Ala Asn Trp Lys Thr Phe Leu Leu  
 225 230 235 240  
 Phe Phe Gly Thr Ala Ile Phe Thr Phe Glu Gly Val Gly Met Val Leu  
 245 250 255  
 Pro Leu Lys Asn Gln Met Lys His Pro Gln Gln Phe Ser Phe Val Leu  
 260 265 270  
 Tyr Leu Gly Met Ser Ile Val Ile Leu Tyr Ile Leu Leu Gly Thr  
 275 280 285  
 Leu Gly Tyr Met Lys Phe Gly Ser Asp Thr Gln Ala Ser Ile Thr Leu  
 290 295 300  
 Asn Leu Pro Asn Cys Trp Leu Tyr Gln Ser Val Lys Leu Met Tyr Ser  
 305 310 315 320  
 Ile Gly Ile Phe Phe Thr Tyr Ala Leu Gln Phe His Val Pro Ala Glu  
 325 330 335  
 Ile Ile Ile Pro Phe Ala Ile Ser Gln Val Ser Glu Ser Trp Ala Leu  
 340 345 350  
 Phe Val Asp Leu Ser Val Arg Ser Ala Leu Val Cys Leu Thr Cys Val  
 355 360 365  
 Ser Ala Ile Leu Ile Pro Arg Leu Asp Leu Val Ile Ser Leu Val Gly  
 370 375 380  
 Ser Val Ser Ser Ala Leu Ala Leu Ile Ile Pro Ala Leu Leu Glu  
 385 390 395 400  
 Ile Val Ile Phe Tyr Ser Glu Asp Met Ser Cys Val Thr Ile Ala Lys  
 405 410 415  
 Asp Ile Met Ile Ser Ile Val Gly Leu Leu Gly Cys Ile Phe Gly Thr  
 420 425 430  
 Tyr Gln Ala Leu Tyr Glu Leu Pro Gln Pro Ile Ser His Ser Met Ala  
 435 440 445  
 Asn Ser Thr Gly Val His Ala  
 450 455

&lt;210&gt; 4938

&lt;211&gt; 162

<212> PRT

<213> *Homo sapiens*

<400> 4938

Met Ser Ile Thr Arg Leu His Glu Gln Lys Leu Val Gln His Val Val			
1	5	10	15
Ser Gln Asn Cys Asp Gly Leu His Leu Arg Ser Gly Leu Pro Arg Thr			
20	25	30	
Ala Ile Ser Glu Leu His Gly Asn Met Tyr Ile Glu Val Ser Ser Pro			
35	40	45	
Ala Gly Thr Gln Gly Leu His Gly Gln Ala Gly Pro Thr His Cys Ala			
50	55	60	
Leu Leu Pro Leu Gly Leu Tyr Leu Leu Arg Ser Gln Gln Gly Val Arg			
65	70	75	80
Ala Gly Val Arg Cys Asp Gly Ala His Cys Pro Pro Gln Thr Pro Asp			
85	90	95	
Arg Pro Asp Leu Pro Gln Val Trp Asp Pro Ala Ala Gly His His Cys			
100	105	110	
Ala Leu Trp Gly Glu Gly Asp Val Gly Ala Ala Ser Glu Leu Gly Ser			
115	120	125	
Gly Asp Arg Gly Cys Gln Gln Ser Arg His His Pro Val Ser Arg Val			
130	135	140	
Gln Pro Glu Gly Ser Lys Glu Val Pro Thr Pro Leu Val His Asp Gln			
145	150	155	160
Ala Pro			

210 4939

<211> 567

<212> PRT

<213> *Homo sapiens*

<400> 4939

Met Asp Asp Lys Asp Ile Asp Lys Glu Leu Arg Gln Lys Leu Asn Phe  
1 5 10 15

Ser Tyr Cys Glu Glu Thr Glu Ile Glu Gly Gln Lys Lys Val Glu Glu  
                   20                  25                  30  
 Ser Arg Glu Ala Ser Ser Gln Thr Pro Glu Lys Gly Glu Val Gln Asp  
                   35                  40                  45  
 Ser Glu Ala Lys Gly Thr Pro Pro Trp Thr Pro Leu Ser Asn Val His  
                   50                  55                  60  
 Glu Leu Asp Thr Ser Ser Glu Lys Asp Lys Glu Ser Pro Asp Gln Ile  
                   65                  70                  75                  80  
 Leu Arg Thr Pro Val Ser His Pro Leu Lys Cys Pro Glu Thr Pro Ala  
                   85                  90                  95  
 Gln Pro Asp Ser Arg Ser Lys Leu Leu Pro Ser Asp Ser Pro Ser Thr  
                   100                 105                 110  
 Pro Lys Thr Met Leu Ser Arg Leu Val Ile Ser Pro Thr Gly Lys Leu  
                   115                 120                 125  
 Pro Ser Arg Gly Pro Lys His Leu Lys Leu Thr Pro Ala Pro Leu Lys  
                   130                 135                 140  
 Asp Glu Met Thr Ser Leu Ala Leu Val Asn Ile Asn Pro Phe Thr Pro  
                   145                 150                 155                 160  
 Glu Ser Tyr Lys Lys Leu Phe Leu Gln Ser Gly Gly Lys Arg Lys Ile  
                   165                 170                 175  
 Arg Gly Asp Leu Glu Glu Ala Gly Pro Glu Glu Gly Lys Gly Gly Leu  
                   180                 185                 190  
 Pro Ala Lys Arg Cys Val Leu Arg Glu Thr Asn Met Ala Ser Arg Tyr  
                   195                 200                 205  
 Glu Lys Glu Phe Leu Glu Val Glu Lys Ile Gly Val Gly Glu Phe Gly  
                   210                 215                 220  
 Thr Val Tyr Lys Cys Ile Lys Arg Leu Asp Gly Cys Val Tyr Ala Ile  
                   225                 230                 235                 240  
 Lys Arg Ser Met Lys Thr Phe Thr Glu Leu Ser Asn Glu Asn Ser Ala  
                   245                 250                 255  
 Leu His Glu Val Tyr Ala His Ala Val Leu Gly His His Pro His Val  
                   260                 265                 270  
 Val Arg Tyr Tyr Ser Ser Trp Ala Glu Asp Asp His Met Ile Ile Gln  
                   275                 280                 285  
 Asn Glu Tyr Cys Asn Gly Gly Ser Leu Gln Ala Ala Ile Ser Glu Asn  
                   290                 295                 300

Thr Lys Ser Gly Asn His Phe Glu Glu Pro Lys Leu Lys Asp Ile Leu  
 305 310 315 320  
 Leu Gln Ile Ser Leu Gly Leu Asn Tyr Ile His Asn Ser Ser Met Val  
 325 330 335  
 His Leu Asp Ile Lys Pro Ser Asn Ile Phe Ile Cys His Lys Val Gln  
 340 345 350  
 Ser Glu Ser Ser Gly Val Ile Glu Glu Val Glu Asn Glu Ala Asp Trp  
 355 360 365  
 Phe Leu Ser Ala Asn Val Met Tyr Lys Ile Gly Asp Leu Gly His Ala  
 370 375 380  
 Thr Ser Ile Asn Lys Pro Lys Val Glu Glu Gly Asp Ser Arg Phe Leu  
 385 390 395 400  
 Ala Asn Glu Ile Leu Gln Glu Asp Tyr Arg His Leu Pro Lys Ala Asp  
 405 410 415  
 Ile Phe Ala Leu Gly Leu Thr Ile Ala Val Ala Ala Gly Ala Glu Ser  
 420 425 430  
 Leu Pro Thr Asn Gly Ala Ala Trp His His Ile Arg Lys Gly Asn Phe  
 435 440 445  
 Pro Asp Val Pro Gln Glu Leu Ser Glu Ser Phe Ser Ser Leu Leu Lys  
 450 455 460  
 Asn Met Ile Gln Pro Asp Ala Glu Gln Arg Pro Ser Ala Ala Ala Leu  
 465 470 475 480  
 Ala Arg Asn Thr Val Leu Arg Pro Ser Leu Gly Lys Thr Glu Glu Leu  
 485 490 495  
 Gln Gln Gln Leu Asn Leu Glu Lys Phe Lys Thr Ala Thr Leu Glu Arg  
 500 505 510  
 Glu Leu Arg Glu Ala Gln Gln Ala Gln Ser Pro Gln Gly Tyr Thr His  
 515 520 525  
 Tyr Gly Asp Thr Gly Val Ser Gly Thr His Thr Gly Ser Arg Ser Thr  
 530 535 540  
 Lys Arg Leu Val Gly Gly Lys Ser Ala Arg Ser Ser Ser Phe Thr Ser  
 545 550 555 560  
 Gly Glu Arg Glu Pro Leu His  
 565

&lt;210&gt; 4940

&lt;211&gt; 140

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4940

Met Asp Phe Ile Val Ala Ala Ser Asn Leu Arg Ala Glu Asn Tyr Asp

1 5 10 15

Ile Pro Ser Ala Asp Arg His Lys Ser Lys Leu Ile Ala Gly Lys Ile  
20 25 30Ile Pro Ala Ile Ala Thr Thr Ala Ala Val Val Gly Leu Val Cys  
35 40 45

Leu Glu Leu Tyr Lys Val Val Gln Gly His Arg Gln Leu Asp Ser Tyr

50 55 60

Lys Asn Gly Phe Leu Asn Leu Ala Leu Pro Phe Phe Gly Phe Ser Glu  
65 70 75 80Pro Leu Ala Ala Pro Arg His Gln Tyr Tyr Asn Gln Glu Trp Thr Leu  
85 90 95Trp Asp Arg Phe Glu Val Gln Gly Leu Gln Pro Asn Gly Glu Glu Met  
100 105 110Thr Leu Lys Gln Phe Leu Asp Tyr Phe Lys Val Arg Pro Leu Pro Tyr  
115 120 125Ser Val Thr Pro Pro Gln Gly Ala Arg Cys Thr Arg  
130 135 140

&lt;210&gt; 4941

&lt;211&gt; 477

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4941

Met Ser Ala Ala Pro Gly Leu Leu His Gln Glu Leu Ser Cys Pro Leu

1 5 10 15

Cys Leu Gln Leu Phe Asp Ala Pro Val Thr Ala Glu Cys Gly His Ser

20	25	30
Phe Cys Arg Ala Cys Leu Gly Arg Val Ala Gly Glu Pro Ala Ala Asp		
35	40	45
Gly Thr Val Leu Cys Pro Cys Cys Gln Ala Pro Thr Arg Pro Gln Ala		
50	55	60
Leu Ser Thr Asn Leu Gln Leu Ala Arg Leu Val Glu Gly Leu Ala Gln		
65	70	75
Val Pro Gln Gly His Cys Glu Glu His Leu Asp Pro Leu Ser Ile Tyr		
85	90	95
Cys Glu Gln Asp Arg Ala Leu Val Cys Gly Val Cys Ala Ser Leu Gly		
100	105	110
Ser His Arg Gly His Arg Leu Leu Pro Ala Ala Glu Ala His Ala Arg		
115	120	125
Leu Lys Thr Gln Leu Pro Gln Gln Lys Leu Gln Leu Gln Glu Ala Cys		
130	135	140
Met Arg Lys Glu Lys Ser Val Ala Val Leu Glu His Gln Leu Val Glu		
145	150	155
Val Glu Glu Thr Val Arg Gln Phe Arg Gly Ala Val Gly Glu Gln Leu		
165	170	175
Gly Lys Met Arg Val Phe Leu Ala Ala Leu Glu Gly Ser Leu Asp Cys		
180	185	190
Glu Ala Glu Arg Val Arg Gly Glu Ala Gly Val Ala Leu Arg Arg Glu		
195	200	205
Leu Gly Ser Leu Asn Ser Tyr Leu Glu Gln Leu Arg Gln Met Glu Lys		
210	215	220
Val Leu Glu Glu Val Ala Asp Lys Pro Gln Thr Glu Phe Leu Met Lys		
225	230	235
Tyr Cys Leu Val Thr Ser Arg Leu Gln Lys Ile Leu Ala Glu Ser Pro		
245	250	255
Pro Pro Ala Arg Leu Asp Ile Gln Leu Pro Ile Ile Ser Asp Asp Phe		
260	265	270
Lys Phe Gln Val Trp Arg Lys Met Phe Arg Ala Leu Met Pro Ala Leu		
275	280	285
Glu Glu Leu Thr Phe Asp Pro Ser Ser Ala His Pro Ser Leu Val Val		
290	295	300
Ser Ser Ser Gly Arg Arg Val Glu Cys Ser Glu Gln Lys Ala Pro Pro		

305	310	315	320	
Ala	Gly	Glu	Asp	
Pro	Arg	Gln	Phe	
Asp	Gln	Phe	Asp	
Arg	Gln	Asp	Lys	
Gln	Ala	Val	Val	
Ala	Val	Val	Ala	
325		330	335	
His	Gln	Leu	Ser	
Gln	Gln	Gly	Glu	
Leu	Ser	Gly	Glu	
		His	Tyr	
		Trp	Glu	
		Val	Asp	
		Val	Gly	
340		345	350	
Asp	Lys	Pro	Arg	
Trp	Ala	Leu	Gly	
Ala	Leu	Val	Val	
		Ile	Ala	
		Ala	Glu	
		Ala	Pro	
			Arg	
355		360	365	
Arg	Gly	Arg	Leu	
Leu	His	Ala	Val	
		Pro	Ser	
		Gln	Gly	
		Leu	Trp	
		Leu	Leu	
			Gly	
370		375	380	
Leu	Arg	Glu	Gly	
Gly	Lys	Ile	Leu	
		Glu	Ala	
		His	Val	
		Glu	Ala	
		Lys	Glu	
		Pro		
385		390	395	400
Arg	Ala	Leu	Arg	Ser
		Pro	Glu	Arg
		Arg	Arg	Pro
		Pro	Thr	Arg
		Ile	Gly	Leu
			Tyr	
405		410		415
Leu	Ser	Phe	Gly	Asp
				Ala
				Ser
				Asp
				Ala
420		425		430
Asp	Ala	Leu	Val	Pro
		Leu	Phe	Ala
			Phe	
				His
				Glu
				Arg
				Leu
				Pro
				Arg
435		440		445
Val	Tyr	Pro	Phe	Asp
				Val
				Cys
				Trp
				His
				Asp
				Lys
				Gly
				Lys
				Asn
				Ala
450		455		460
Gln	Pro	Leu	Leu	Val
				Gly
				Pro
				Glu
				Ala
465		470		475

&lt;210&gt; 4942

&lt;211&gt; 505

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4942

Met Ala Val Ala Leu Asp Ser Gln Ile Asp Ala Pro Leu Glu Val Glu

1 5 10 15

Gly Cys Leu Ile Met Lys Val Glu Lys Asp Pro Glu Trp Ala Ser Glu

20 25 30

Pro Ile Leu Glu Gly Ser Asp Ser Ser Glu Thr Phe Arg Lys Cys Phe

35 40 45

Arg Gln Phe Cys Tyr Glu Asp Val Thr Gly Pro His Glu Ala Phe Ser

50	55	60	
Lys Leu Trp Glu Leu Cys Cys Arg Trp Leu Lys Pro Glu Met Arg Ser			
65	70	75	80
Lys Glu Gln Ile Leu Glu Leu Leu Val Ile Glu Gln Phe Leu Thr Ile			
85	90	95	
Leu Pro Glu Lys Ile Gln Ala Trp Ala Gln Lys Gln Cys Pro Gln Ser			
100	105	110	
Gly Glu Glu Ala Val Ala Leu Val Val His Leu Glu Lys Glu Thr Gly			
115	120	125	
Arg Leu Arg Gln Gln Val Ser Ser Pro Val His Arg Glu Lys His Ser			
130	135	140	
Pro Leu Gly Ala Ala Trp Glu Val Ala Asp Phe Gln Pro Glu Gln Val			
145	150	155	160
Glu Thr Gln Pro Arg Ala Val Ser Arg Glu Glu Pro Gly Ser Leu His			
165	170	175	
Ser Gly His Gln Glu Gln Leu Asn Arg Lys Arg Glu Arg Arg Pro Leu			
180	185	190	
Pro Lys Asn Ala Arg Pro Ser Pro Trp Val Pro Ala Leu Ala Asp Glu			
195	200	205	
Trp Asn Thr Leu Asp Gln Glu Val Thr Thr Arg Leu Pro Ala Gly			
210	215	220	
Ser Gln Glu Pro Val Lys Asp Val His Val Ala Arg Gly Phe Ser Tyr			
225	230	235	240
Arg Lys Ser Val His Gln Ile Pro Ala Gln Arg Asp Leu Tyr Arg Asp			
245	250	255	
Phe Arg Lys Glu Asn Val Gly Asn Val Val Ser Leu Gly Ser Ala Val			
260	265	270	
Ser Thr Ser Asn Lys Ile Thr Arg Leu Glu Gln Arg Lys Glu Pro Trp			
275	280	285	
Thr Leu Gly Leu His Ser Ser Asn Lys Arg Ser Ile Leu Arg Ser Asn			
290	295	300	
Tyr Val Lys Glu Lys Ser Val His Ala Ile Gln Val Pro Ala Arg Ser			
305	310	315	320
Ala Gly Lys Thr Trp Arg Glu Gln Gln Trp Gly Leu Glu Asp Glu			
325	330	335	
Lys Ile Ala Gly Val His Trp Ser Tyr Glu Glu Thr Lys Thr Phe Leu			

340	345	350
Ala Ile Leu Lys Glu Ser Arg Phe Tyr Glu Thr Leu Gln Ala Cys Pro		
355	360	365
Arg Asn Ser Gln Val Tyr Gly Ala Val Ala Glu Trp Leu Arg Glu Cys		
370	375	380
Gly Phe Leu Arg Thr Pro Glu Gln Cys Arg Thr Lys Phe Lys Ser Leu		
385	390	395
Gln Lys Ser Tyr Arg Lys Val Arg Asn Gly His Met Leu Glu Pro Cys		
405	410	415
Ala Phe Phe Glu Asp Met Asp Ala Leu Leu Asn Pro Ala Ala Arg Ala		
420	425	430
Pro Ser Thr Asp Lys Pro Lys Glu Met Ile Pro Val Pro Arg Leu Lys		
435	440	445
Arg Ile Ala Ile Ser Ala Lys Glu His Ile Ser Leu Val Glu Glu Glu		
450	455	460
Glu Ala Ala Glu Asp Ser Asp Asp Asp Glu Ile Gly Ile Glu Phe Ile		
465	470	475
Arg Lys Ser Glu Ile His Gly Ala Pro Val Leu Phe Gln Asn Leu Ser		
485	490	495
Gly Lys Asn Cys Ala Leu Phe Leu Trp		
500	505	

<210> 4943

<211> 133

<212> PRT

<213> Homo sapiens

<400> 4943

Met Pro Pro Leu Ala Arg Ser Pro Arg Ala Ser Ile Val Ala Leu Arg		
1	5	10
Lys Met Ile Thr Ser Phe Leu Ala Leu Trp Trp His Val Cys Val Cys		
20	25	30
Ile Cys Ile Tyr Thr His Ile Tyr Ile Asn Thr Gln Thr His Ile Tyr		
35	40	45
Thr Asn Thr Arg Ile His Phe Arg Pro Gln Phe Leu Ala His Asn Ser		

50	55	60	
His Ser Pro Cys Tyr Thr Leu Leu Leu Gln His Trp Val Cys Gln Ala			
65	70	75	80
Ser Gly Asp Asn His Ser Asn Leu Leu Pro Phe Leu Leu Pro Ala Gln			
85	90	95	
Asp Arg Thr Leu Ile Phe Pro Thr Phe Leu Met Val Gly His Lys Thr			
100	105	110	
His Ser Arg Asp Gly Pro Thr Pro Tyr Pro Ala Arg Arg Asn Ala Ala			
115	120	125	
Val Met Lys Leu Pro			
130			

<210> 4944

<211> 502

<212> PRT

<213> Homo sapiens

<400> 4944

Met Val Gln Tyr His Gly Ala Glu Ala Ala Gln Arg Phe Ile Leu Thr			
1	5	10	15
Val Met Asn Met Val Tyr Asn Met Phe Gln His Gln Ser Leu Gly Ile			
20	25	30	
Lys Ile Asn Ile Gln Val Thr Lys Leu Val Leu Leu Arg Gln Arg Pro			
35	40	45	
Ala Lys Leu Ser Ile Gly His His Gly Glu Arg Ser Leu Glu Ser Phe			
50	55	60	
Cys His Trp Gln Asn Glu Glu Tyr Gly Ala Arg Tyr Leu Gly Asn			
65	70	75	80
Asn Gln Val Pro Gly Gly Lys Asp Asp Pro Pro Leu Val Asp Ala Ala			
85	90	95	
Val Phe Val Thr Arg Thr Asp Phe Cys Val His Lys Asp Glu Pro Cys			
100	105	110	
Asp Thr Val Gly Ile Ala Tyr Leu Gly Gly Val Cys Ser Ala Lys Arg			
115	120	125	

Lys Cys Val Leu Ala Glu Asp Asn Gly Leu Asn Leu Ala Phe Thr Ile  
 130 135 140  
 Ala His Glu Leu Gly His Asn Leu Gly Met Asn His Asp Asp Asp His  
 145 150 155 160  
 Ser Ser Cys Ala Gly Arg Ser His Ile Met Ser Gly Glu Trp Val Lys  
 165 170 175  
 Gly Arg Asn Pro Ser Asp Leu Ser Trp Ser Ser Cys Ser Arg Asp Asp  
 180 185 190  
 Leu Glu Asn Phe Leu Lys Ser Lys Val Ser Thr Cys Leu Leu Val Thr  
 195 200 205  
 Asp Pro Arg Ser Gln His Thr Val Arg Leu Pro His Lys Leu Pro Gly  
 210 215 220  
 Met His Tyr Ser Ala Asn Glu Gln Cys Gln Ile Leu Phe Gly Met Asn  
 225 230 235 240  
 Ala Thr Phe Cys Arg Asn Met Glu His Leu Met Cys Ala Gly Leu Trp  
 245 250 255  
 Cys Leu Val Glu Gly Asp Thr Ser Cys Lys Thr Lys Leu Asp Pro Pro  
 260 265 270  
 Leu Asp Gly Thr Glu Cys Gly Ala Asp Lys Trp Cys Arg Ala Gly Glu  
 275 280 285  
 Cys Val Ser Lys Thr Pro Ile Pro Glu His Val Asp Gly Asp Trp Ser  
 290 295 300  
 Pro Trp Gly Ala Trp Ser Met Cys Ser Arg Thr Cys Gly Thr Gly Ala  
 305 310 315 320  
 Arg Phe Arg Gln Arg Lys Cys Asp Asn Pro Pro Pro Gly Pro Gly Gly  
 325 330 335  
 Thr His Cys Pro Gly Ala Ser Val Glu His Ala Val Cys Glu Asn Leu  
 340 345 350  
 Pro Cys Pro Lys Gly Leu Pro Ser Phe Arg Asp Gln Gln Cys Gln Ala  
 355 360 365  
 His Asp Arg Leu Ser Pro Lys Lys Gly Leu Leu Thr Ala Val Val  
 370 375 380  
 Val Asp Asp Lys Pro Cys Glu Leu Tyr Cys Ser Pro Leu Gly Lys Glu  
 385 390 395 400  
 Ser Pro Leu Leu Val Ala Asp Arg Val Leu Asp Gly Thr Pro Cys Gly  
 405 410 415

Pro Tyr Glu Thr Asp Leu Cys Val His Gly Lys Cys Gln Lys Ile Gly  
                  420                 425                 430  
 Cys Asp Gly Ile Ile Gly Ser Ala Ala Lys Glu Asp Arg Cys Gly Val  
                  435                 440                 445  
 Cys Ser Gly Asp Gly Lys Thr Cys His Leu Ala Lys Gly Asp Phe Ser  
                  450                 455                 460  
 His Ala Arg Gly Thr Gly Tyr Ile Glu Ala Ala Val Ile Pro Ala Gly  
                  465                 470                 475                 480  
 Ala Arg Arg Ile Arg Val Val Glu Asp Lys Pro Ala His Ser Phe Leu  
                  485                 490                 495  
 Gly Lys Thr Gln Met Thr  
                  500

<210> 4945

<211> 356

<212> PRT

<213> Homo sapiens

<400> 4945

Met Val Ile Lys Gln Met Leu Ile Arg Asp Pro Phe Pro Ser Leu Ser  
          1                 5                 10                 15  
 Leu Ala Gln Ile Ala Met Asp Arg Met Lys Lys Ile Lys Arg Gln Leu  
          20                 25                 30  
 Ser Met Thr Leu Arg Gly Gly Arg Gly Ile Asp Lys Thr Asn Gly Ala  
          35                 40                 45  
 Pro Glu Gln Ile Gly Leu Asp Glu Ser Gly Gly Gly Ser Asp  
          50                 55                 60  
 Pro Gly Glu Ala Pro Thr Arg Ala Ala Pro Gly Glu Leu Arg Ser Ala  
          65                 70                 75                 80  
 Arg Gly Pro Leu Ser Ser Ala Pro Glu Ile Val His Glu Asp Leu Lys  
          85                 90                 95  
 Met Gly Ser Asp Gly Glu Ser Asp Gln Ala Ser Ala Thr Ser Ser Asp  
          100                 105                 110  
 Glu Val Gln Ser Pro Val Arg Val Arg Met Arg Asn His Pro Pro Arg  
          115                 120                 125

Lys Ile Ser Thr Glu Asp Ile Asn Lys Arg Leu Ser Leu Pro Ala Asp  
 130 135 140  
 Ile Arg Leu Pro Glu Gly Tyr Leu Glu Lys Leu Thr Leu Asn Ser Pro  
 145 150 155 160  
 Ile Phe Asp Lys Pro Leu Ser Arg Arg Leu Arg Arg Val Ser Leu Ser  
 165 170 175  
 Glu Ile Gly Phe Gly Lys Leu Glu Thr Tyr Ile Lys Leu Asp Lys Leu  
 180 185 190  
 Gly Glu Gly Thr Tyr Ala Thr Val Tyr Lys Gly Lys Ser Lys Leu Thr  
 195 200 205  
 Asp Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu Glu Gly  
 210 215 220  
 Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys Asp Leu Lys  
 225 230 235 240  
 His Ala Asn Ile Val Thr Leu His Asp Ile Ile His Thr Glu Lys Ser  
 245 250 255  
 Leu Thr Leu Val Phe Glu Tyr Leu Asp Lys Asp Leu Lys Gln Tyr Leu  
 260 265 270  
 Asp Asp Cys Gly Asn Ile Ile Asn Met His Asn Val Lys Val Gly Val  
 275 280 285  
 Gly Gln Glu Ala Gly Ala Gln Gly Pro His Ser Pro Thr Pro Thr  
 290 295 300  
 His Lys Ser Pro Arg Asn Gly Leu Phe Pro Leu Ala Phe Phe Ala Arg  
 305 310 315 320  
 Ser Pro Trp Arg Ala Leu Gly Pro Cys Pro Leu Leu Cys Asp Lys Ala  
 325 330 335  
 Leu Gly Leu Val Ser Val Phe Gly Arg Gly Ala Val Pro Ala Gly Gly  
 340 345 350  
 Arg Ala Ser Gly  
 355

<210> 4946

<211> 126

<212> PRT

<213> Homo sapiens

&lt;400&gt; 4946

Met	Met	Ile	Thr	Ala	His	Tyr	Ser	Leu	Asp	Phe	Thr	Gly	Ser	Gly	Asp		
1															15		
Phe	Pro	Thr	Ser	Ala	Ser	Arg	Val	Ala	Gly	Thr	Thr	Gly	Thr	His	His		
														20	25	30	
His	Thr	Gln	Leu	Ile	Phe	Cys	Ile	Phe	Ser	Arg	Gly	Arg	Val	Leu	Pro		
														35	40	45	
Cys	Cys	Pro	Gly	Trp	Ser	Arg	Thr	Pro	Gly	Leu	Lys	Gln	Ser	Ala	His		
														50	55	60	
Leu	Gly	Leu	Pro	Lys	Cys	Trp	Ile	Thr	Gly	Met	Ser	Arg	Cys	Ala	Gln		
														65	70	75	80
Pro	Lys	Ile	Ile	Phe	Ile	Leu	Phe	Ile	Gly	Ser	Ser	Phe	Ile	Ala	Leu		
														85	90	95	
Glu	Ile	Gln	Ala	Ala	Arg	Tyr	Cys	Asp	Trp	Cys	Ile	Trp	Thr	Tyr	Leu		
														100	105	110	
Trp	Ser	Lys	Thr	Gly	Thr	His	Gln	Ile	Val	Ala	Leu	Ala	Asn				
														115	120	125	

&lt;210&gt; 4947

&lt;211&gt; 141

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4947

Met	Leu	Leu	Trp	Thr	Leu	Gln	Tyr	Lys	Cys	Leu	Thr	Lys	Ser	Leu	Leu		
1															15		
Leu	Ile	Leu	Trp	Gly	Ile	Tyr	Ile	Lys	Val	Glu	Leu	Leu	Asp	His	Leu		
														20	25	30	
Val	Val	Leu	His	Phe	Thr	Phe	Phe	Arg	Asp	Cys	His	Ile	Val	Phe	His		
														35	40	45	
Ser	Asp	Cys	Thr	Ile	Leu	Tyr	Ser	Leu	Arg	Gln	Tyr	Ala	Arg	Val	Leu		
														50	55	60	
Ile	Ser	Pro	Tyr	Ser	His	Gln	His	Leu	Phe	Ser	Val	Leu	Arg	Ile	Ile		
														65	70	75	80

Ala Ile Leu Arg Gly Val Met Trp Tyr Leu Ile Glu Val Ser Ile Cys			
	85	90	95
Ile Ser Leu Met Ile Ser Asp Val Glu Cys Phe Phe Met Tyr Phe Leu			
	100	105	110
Ala Ile Cys Ile Ser Pro Leu Lys Lys Tyr Gln Tyr Gln Val Ile Cys			
.	115	120	125
Ser Cys Leu Ile Glu Leu Leu Cys Cys Gly Gly Phe Tyr			
	130	135	140

210 4948

〈211〉 152

<212> PRT

〈213〉 *Homo sapiens*

〈400〉 4948

Met	Gly	Phe	His	Tyr	Val	Gly	Gln	Ala	Gly	Leu	Glu	Leu	Leu	Thr	Ser
1														15	
Gly	Asp	Pro	Leu	Ala	Ser	Ala	Phe	Gln	Ser	Ala	Gly	Ile	Ile	Gly	Val
														20	30
Ser	His	Arg	Thr	Trp	Gly	Gly	Tyr	Cys	Leu	Lys	Lys	Lys	Ser	Pro	Asp
														35	45
Ser	Asp	Pro	Leu	Ser	Thr	Trp	Arg	Thr	Ser	Thr	Gly	Arg	Lys	Gln	Met
														50	60
Leu	Gln	Ile	Phe	Lys	Tyr	Pro	Asp	Gly	Phe	Gly	Ser	Gln	Gly	Glu	Arg
														65	80
Asp	Leu	Thr	Ser	Val	Tyr	His	Pro	Thr	Leu	Ser	Thr	Lys	Val	Thr	Ile
														85	95
Asn	Thr	Lys	Ser	Ile	Ala	Trp	Ala	Thr	Gly	Lys	Lys	Ala	Phe	Ile	Cys
														100	110
Ile	Asn	Val	Cys	Val	Tyr	Ile	His	Cys	Phe	Phe	Phe	Phe	Lys	Arg	Leu
														115	125
Gly	Leu	Pro	Leu	Ser	Pro	Arg	Leu	Glu	His	Ser	Gly	Thr	Ile	Ile	Ala
														130	140
His	Cys	Ser	Leu	Gln	Arg	Cys	Gly								
														145	150

&lt;210&gt; 4949

&lt;211&gt; 168

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4949

Met	Tyr	Pro	Ser	Asn	Lys	Lys	Lys	Lys	Val	Trp	Arg	Glu	Glu	Lys	Glu
1									10					15	
Arg	Leu	Leu	Lys	Met	Thr	Leu	Glu	Glu	Arg	Arg	Lys	Glu	Tyr	Leu	Arg
				20					25					30	
Asp	Tyr	Ile	Pro	Leu	Asn	Ser	Ile	Leu	Ser	Trp	Lys	Glu	Glu	Met	Lys
					35				40					45	
Gly	Lys	Gly	Gln	Asn	Asp	Glu	Glu	Asn	Ile	Gln	Glu	Thr	Ser	Gln	Val
					50				55					60	
Lys	Lys	Ser	Leu	Thr	Glu	Lys	Val	Ser	Leu	Tyr	Arg	Gly	Asp	Ile	Thr
					65				70					80	
Leu	Leu	Glu	Val	Asp	Ala	Ile	Val	Asn	Ala	Ala	Asn	Ala	Ser	Leu	Leu
					85				90					95	
Gly	Gly	Gly	Val	Asp	Gly	Cys	Ile	His	Arg	Ala	Ala	Gly	Pro	Cys	
				100				105					110		
Leu	Leu	Ala	Glu	Cys	Arg	Asn	Leu	Asn	Gly	Cys	Asp	Thr	Gly	His	Ala
					115			120					125		
Lys	Ile	Thr	Cys	Gly	Tyr	Asp	Leu	Pro	Ala	Lys	Tyr	Val	Ile	His	Thr
					130			135					140		
Val	Gly	Pro	Ile	Ala	Arg	Ala	Ile	Leu	Met	Val	Pro	Thr	Arg	Lys	Thr
					145			150					155		160
Leu	Gln	Ile	Ala	Ile	Asn	His	Leu								
					165										

&lt;210&gt; 4950

&lt;211&gt; 151

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4950

Met	Gly	Leu	Gly	Gly	Val	Ser	Arg	Glu	Ala	Gly	Leu	Leu	Leu	Ser	
1															
Ser	Pro	Cys	Pro	Asp	Pro	Ser	Val	Cys	Leu	Ser	Asp	Lys	Pro	Val	Pro
20							25							30	
Glu	Glu	Ser	Glu	Gly	Pro	Gly	Ser	Pro	Pro	Tyr	Lys	Met	Ile	Gln	
35							40							45	
Thr	Ile	Gly	Leu	Ser	Val	Gly	Ala	Ala	Val	Ala	Tyr	Ile	Ile	Ala	Val
50							55							60	
Leu	Gly	Leu	Met	Phe	Tyr	Cys	Lys	Lys	Arg	Cys	Lys	Ala	Lys	Arg	Leu
65							70							80	
Gln	Lys	Gln	Pro	Glu	Gly	Glu	Glu	Pro	Glu	Met	Glu	Cys	Leu	Asn	Gly
85								90						95	
Gly	Pro	Leu	Gln	Asn	Gly	Gln	Pro	Ser	Ala	Glu	Ile	Gln	Glu	Glu	Val
100							105							110	
Ala	Leu	Thr	Ser	Leu	Gly	Ser	Gly	Pro	Ala	Ala	Thr	Asn	Lys	Arg	His
115							120							125	
Ser	Thr	Ser	Asp	Lys	Met	His	Phe	Pro	Arg	Ser	Ser	Leu	Gln	Pro	Ile
130							135							140	
Thr	Thr	Leu	Gly	Met	Leu	Pro									
145							150								

&lt;210&gt; 4951

&lt;211&gt; 182

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4951

Met	Leu	Pro	Thr	Ala	Ala	Gly	Phe	Ser	Ile	Trp	Gly	Gln	Val	Gly	Ala
1															
5															15
Ala	Arg	Glu	Ala	Pro	Arg	Cys	Gln	Thr	Lys	Ile	Ser	Ser	Cys	Ser	Cys
20								25						30	
Pro	Thr	Ser	Ser	Val	Ser	Ala	Ala	His	Gly	Pro	Gly	Pro	Asn	Glu	Arg
35								40						45	

Ala Arg Gly Leu Gly Gly Leu Pro Asp Pro Ala Leu Ser Pro Arg Val  
 50 55 60  
 Pro Phe Gln Gly Tyr Ala Arg Ile Val Phe Ala Ile Ile Ser Phe Tyr  
 65 70 75 80  
 Phe Met Pro Cys Cys Pro Leu Thr Ala Ser Ser Phe Tyr Leu Leu Ser  
 85 90 95  
 Gly Leu Leu Asp Ala Phe Asp Gly His Ala Ala Arg Ala Leu Asn Gln  
 100 105 110  
 Gly Thr Arg Phe Gly Ala Met Leu Asp Met Leu Thr Asp Arg Cys Ser  
 115 120 125  
 Thr Met Cys Leu Leu Val Asn Leu Ala Leu Leu Tyr Pro Gly Ala Thr  
 130 135 140  
 Leu Phe Phe Gln Ile Ser Met Ser Leu Asp Val Ala Ser His Trp Leu  
 145 150 155 160  
 His Leu His Arg Ser Ala Ala Ile Leu Gly Ala Trp Ala Thr Trp Arg  
 165 170 175  
 His Tyr Ser Gly Val Gly  
 180

<210> 4952

<211> 258

<212> PRT

<213> Homo sapiens

<400> 4952

Met Gly Thr Leu Thr Phe His Leu Lys Ser Ser Phe Pro Gln Val Leu  
 1 5 10 15  
 Arg His Val Asn Gly Gln Asp Gln Ile Val Pro Gly Leu Tyr Ala Cys  
 20 25 30  
 Gly Glu Ala Ala Cys Ala Ser Val His Gly Ala Asn Arg Leu Gly Ala  
 35 40 45  
 Asn Ser Leu Leu Asp Leu Val Ala Phe Gly Arg Ala Cys Ala Pro Ser  
 50 55 60  
 Ile Glu Glu Ser Cys Arg Pro Gly Asp Lys Val Pro Pro Ile Lys Pro  
 65 70 75 80

Asn Ala Gly Glu Glu Ser Val Met Asn Leu Asp Lys Leu Arg Phe Ala  
                          85                         90                         95  
 Asp Gly Ser Ile Arg Thr Ser Glu Leu Arg Leu Ser Met Gln Lys Ser  
                          100                     105                     110  
 Met Gln Asn His Ala Ala Val Phe Arg Val Gly Ser Val Leu Gln Glu  
                          115                     120                     125  
 Gly Cys Gly Lys Ile Ser Lys Leu Tyr Gly Asp Leu Lys His Leu Lys  
                          130                     135                     140  
 Thr Phe Asp Arg Gly Met Val Trp Asn Thr Asp Leu Val Glu Thr Leu  
                          145                     150                     155                     160  
 Glu Leu Gln Asn Leu Met Leu Cys Ala Leu Gln Thr Ile Tyr Gly Ala  
                          165                     170                     175  
 Glu Ala Arg Lys Glu Ser Arg Gly Ala His Ala Arg Glu Asp Tyr Lys  
                          180                     185                     190  
 Val Arg Ile Asp Glu Tyr Asp Tyr Ser Lys Pro Ile Gln Gly Gln Gln  
                          195                     200                     205  
 Lys Lys Pro Phe Glu Glu His Trp Arg Lys His Thr Leu Ser Tyr Val  
                          210                     215                     220  
 Asp Val Gly Thr Gly Lys Val Thr Leu Glu Tyr Arg Pro Val Ile Asp  
                          225                     230                     235                     240  
 Lys Thr Leu Asn Glu Ala Asp Cys Ala Thr Val Pro Pro Ala Ile Arg  
                          245                     250                     255  
 Ser Tyr

<210> 4953

<211> 149

<212> PRT

<213> Homo sapiens

<400> 4953

Met Tyr Met Glu Pro Ser Ala Arg Ser Ala Gly Tyr Ser Pro Gln Gln  
                          1                     5                     10                     15  
 Lys Arg Leu Ser Lys Thr Arg Ile Pro Arg Leu Gln Ser Leu Thr Asp  
                          20                     25                     30

Gln Ala Ala Leu Trp Gly Thr Thr Cys Asp Gln Val Asn Ala Lys Gln  
 35 40 45  
 Gly Pro Lys Pro Ser Pro Gly Ile Arg Leu Arg Arg Asn Leu Pro Gly  
 50 55 60  
 Glu Lys Trp Glu Ile Asp Phe Thr Lys Val Lys Pro His Gln Ala Gly  
 65 70 75 80  
 Tyr Lys Tyr Leu Leu Val Leu Val Asp Thr Phe Ser Gly Trp Thr Glu  
 85 90 95  
 Ala Phe Ala Thr Lys Asn Glu Thr Ala Asn Leu Val Val Lys Phe Leu  
 100 105 110  
 Leu Asn Glu Ile Ile Pro Arg Tyr Gly Leu Pro Ala Ala Ile Gly Ser  
 115 120 125  
 Asp Asn Gly Pro Ala Phe Thr Ser Ser Ile Val Leu Ser Val Ser Lys  
 130 135 140  
 Ala Leu Asn Ile Gln  
 145

〈210〉 4954

<211> 602

<212> PRT

〈213〉 *Homo sapiens*

<400> 4954

Met	Glu	Ser	Gln	Ala	Thr	Ser	Ala	Ser	Ile	Asn	Asn	Ser	Asn	Pro	Ser
1	5								10					15	
Thr	Ser	Glu	Gln	Ala	Ser	Asp	Thr	Ala	Ser	Ala	Val	Thr	Ser	Ser	Gln
		20							25				30		
Pro	Ser	Thr	Val	Ser	Glu	Thr	Ser	Ala	Thr	Leu	Thr	Ser	Asn	Ser	Thr
		35							40				45		
Thr	Gly	Thr	Ser	Ile	Gly	Asp	Asp	Ser	Arg	Arg	Thr	Thr	Ser	Ser	Ala
		50				55					60				
Val	Thr	Glu	Thr	Gly	Pro	Pro	Ala	Met	Pro	Arg	Leu	Pro	Ser	Cys	Cys
		65				70				75				80	
Pro	Gln	His	Ser	Pro	Cys	Gly	Gly	Ser	Ser	Gln	Asn	His	His	Ala	Leu
								85			90			95	

Gly His Pro His Thr Ser Cys Phe Gln Gln His Gly His His Phe Gln  
                  100                 105                 110  
 His His His His His His Thr Pro His Pro Ala Val Pro Val Ser  
                  115                 120                 125  
 Pro Ser Phe Ser Asp Pro Ala Cys Pro Val Glu Arg Pro Pro Gln Val  
                  130                 135                 140  
 Gln Ala Pro Cys Gly Ala Asn Ser Ser Ser Gly Thr Ser Tyr His Glu  
                  145                 150                 155                 160  
 Gln Gln Ala Leu Pro Val Asp Leu Ser Asn Ser Gly Ile Arg Ser His  
                  165                 170                 175  
 Gly Ser Gly Ser Phe His Gly Ala Ser Ala Phe Asp Pro Cys Cys Pro  
                  180                 185                 190  
 Val Ser Ser Ser Arg Ala Ala Ile Phe Gly His Gln Ala Ala Ala Ala  
                  195                 200                 205  
 Ala Pro Ser Gln Pro Leu Ser Ser Ile Asp Gly Tyr Gly Ser Ser Met  
                  210                 215                 220  
 Val Ala Gln Pro Gln Pro Gln Pro Pro Pro Gln Pro Ser Leu Ser Ser  
                  225                 230                 235                 240  
 Cys Arg His Tyr Met Pro Pro Pro Tyr Ala Ser Leu Thr Arg Pro Leu  
                  245                 250                 255  
 His His Gln Ala Ser Ala Cys Pro His Ser His Gly Asn Pro Pro Pro  
                  260                 265                 270  
 Gln Thr Gln Pro Pro Pro Gln Val Asp Tyr Val Ile Pro His Pro Val  
                  275                 280                 285  
 His Ala Phe His Ser Gln Ile Ser Ser His Ala Thr Ser His Pro Val  
                  290                 295                 300  
 Ala Pro Pro Pro Pro Thr His Leu Ala Ser Thr Ala Ala Pro Ile Pro  
                  305                 310                 315                 320  
 Gln His Leu Pro Pro Thr His Gln Pro Ile Ser His His Ile Pro Ala  
                  325                 330                 335  
 Thr Ala Pro Pro Ala Gln Arg Leu His Pro His Glu Val Met Gln Arg  
                  340                 345                 350  
 Met Glu Val Gln Arg Arg Arg Met Met Gln His Pro Thr Gly Leu Phe  
                  355                 360                 365  
 Val Phe Cys Val Ser Arg Arg Ala His Glu Arg Pro Pro Pro His Pro  
                  370                 375                 380

His Arg Met His Pro Asn Tyr Gly His Gly His His Ile His Val Pro  
 385 390 395 400  
 Gln Thr Met Ser Ser His Pro Arg Gln Ala Pro Glu Arg Ser Ala Trp  
 405 410 415  
 Glu Leu Gly Ile Glu Ala Gly Val Thr Ala Ala Thr Tyr Thr Pro Gly  
 420 425 430  
 Ala Leu His Pro His Leu Ala His Tyr His Ala Pro Pro Arg Leu His  
 435 440 445  
 His Leu Gln Leu Gly Ala Leu Pro Leu Met Val Pro Asp Met Ala Gly  
 450 455 460  
 Tyr Pro His Ile Arg Tyr Ile Ser Ser Gly Leu Asp Gly Thr Ser Phe  
 465 470 475 480  
 Arg Gly Pro Phe Arg Gly Asn Phe Glu Glu Leu Ile His Leu Glu Glu  
 485 490 495  
 Arg Leu Gly Asn Val Asn Arg Gly Ala Ser Gln Gly Thr Ile Glu Arg  
 500 505 510  
 Cys Thr Tyr Pro His Lys Tyr Lys Lys Val Thr Thr Asp Trp Phe Ser  
 515 520 525  
 Gln Arg Lys Leu His Cys Lys Gln Asp Gly Glu Glu Gly Thr Glu Glu  
 530 535 540  
 Asp Thr Glu Glu Lys Cys Thr Ile Cys Leu Ser Ile Leu Glu Glu Gly  
 545 550 555 560  
 Glu Asp Val Arg Arg Leu Pro Cys Met His Leu Phe His Gln Val Cys  
 565 570 575  
 Val Asp Gln Trp Leu Ile Thr Asn Lys Lys Cys Pro Ile Cys Arg Val  
 580 585 590  
 Asp Ile Glu Ala Gln Leu Pro Ser Glu Ser  
 595 600

<210> 4955

<211> 116

<212> PRT

<213> Homo sapiens

<400> 4955

Met Val Ser Gly Met Gly Met Gly Asn Arg Asp Thr Asn Pro Asn Gly  
 1 5 10 15  
 Lys Pro Leu Ala Lys Gln Pro Pro Glu Phe Val Leu Ile Val Tyr Ser  
 20 25 30  
 Gln Ser Leu Ala Thr Ala His Thr Leu Phe Phe Ser Tyr Lys Gln Lys  
 35 40 45  
 Glu Leu Ser Leu Ser Ala Met Asn Pro Ala Ile Pro Arg Lys Lys Ala  
 50 55 60  
 Asn Ala Leu Ala Ser Ser Pro Val Arg Ala Thr His Ser Ile Ser Thr  
 65 70 75 80  
 Phe Cys Met Leu Lys Leu Cys His Arg Arg Arg Ala Ser Ala His Asp  
 85 90 95  
 Gln Phe Phe Phe Trp Ser Ile Gly Ser Phe Cys Leu Arg Ile Phe Val  
 100 105 110  
 Cys Val Tyr Leu  
 115

<210> 4956

<211> 376

<212> PRT

<213> Homo sapiens

<400> 4956

Met Ala Asp Ser Arg Arg Val Ile Ile Ala Ser Trp Tyr Arg Thr Phe  
 1 5 10 15  
 Met Gly Ile Val Asn Leu Phe Gly Leu Glu Thr Lys Thr Cys Trp Asn  
 20 25 30  
 Val Thr Arg Ile Glu Pro Leu Asn Glu Val Gln Ser Cys Glu Gly Leu  
 35 40 45  
 Arg Asp Pro Ala Cys Phe Tyr Val Gly Val Ile Phe Ile Leu Asn Gly  
 50 55 60  
 Leu Met Met Gly Leu Phe Phe Ile Tyr Gly Thr Tyr Leu Ser Gly Thr  
 65 70 75 80  
 Glu Leu Gly Gly Leu Ile Thr Val Leu Cys Phe Phe Phe Asn His Gly  
 85 90 95

Glu Ala Thr Cys Val Met Trp Thr Pro Pro Leu Arg Glu Ser Phe Ser  
 100 105 110  
 Tyr Pro Phe Leu Val Leu Gln Met Tyr Val Leu Thr Leu Ile Leu Arg  
 115 120 125  
 Thr Ser Ser Asn Asp Arg Arg Pro Phe Ile Ala Leu Cys Leu Ser Asn  
 130 135 140  
 Val Ala Phe Met Leu Pro Trp Gln Phe Ala Gln Phe Ile Leu Phe Thr  
 145 150 155 160  
 Gln Ile Ala Ser Leu Phe Pro Met Tyr Val Val Gly Tyr Ile Glu Pro  
 165 170 175  
 Ser Lys Phe Gln Lys Ile Ile Tyr Met Asn Met Ile Ser Val Thr Leu  
 180 185 190  
 Ser Phe Ile Leu Met Phe Gly Asn Ser Met Tyr Leu Ser Ser Tyr Tyr  
 195 200 205  
 Ser Ser Ser Leu Leu Met Thr Trp Ala Ile Ile Leu Lys Arg Asn Glu  
 210 215 220  
 Ile Gln Lys Leu Gly Val Ser Lys Leu Asn Cys Trp Leu Ile Gln Gly  
 225 230 235 240  
 Ser Ala Trp Trp Cys Gly Thr Ile Ile Leu Lys Phe Leu Thr Ser Lys  
 245 250 255  
 Ile Leu Gly Val Ser Asp His Ile Cys Leu Ser Asp Leu Ile Ala Ala  
 260 265 270  
 Gly Thr Leu Arg Tyr Thr Asp Phe Asp Thr Leu Lys Tyr Thr Cys Ser  
 275 280 285  
 Pro Glu Phe Asp Phe Met Glu Lys Ala Thr Leu Leu Ile Tyr Thr Lys  
 290 295 300  
 Thr Leu Leu Leu Pro Val Val Met Val Ile Thr Cys Phe Ile Phe Lys  
 305 310 315 320  
 Lys Thr Val Gly Asp Ile Ser Arg Val Leu Ala Thr Asn Val Tyr Leu  
 325 330 335  
 Arg Cys Cys Leu Cys Arg Cys His Ala Tyr Asn Gly Lys Cys Gln Ala  
 340 345 350  
 Val Tyr Thr Ser Ser His Cys Glu Ser Ser Thr Leu Arg Arg Cys Arg  
 355 360 365  
 Leu Glu Ala Trp Leu Gln His Ala  
 370 375



Lys Ala Gly Gln Gly Leu Cys Val Ser Asp Pro Phe Glu Leu Thr Val  
 50 55 60  
 Met Lys Ser Phe Phe Val Asp Leu Lys Leu Pro Ser Ser Val Ile Arg  
 65 70 75 80  
 Asn Glu Gln Val Gln Ile Gln Ala Met Leu Tyr Asn Phe Arg Asp Arg  
 85 90 95  
 Gln Ala Lys Val Arg Val Glu Phe Pro His Lys Glu Thr Leu Cys Ser  
 100 105 110  
 Ala Ser Lys Pro Gly Ala Pro Ser His Gln Ala Gly Val Gln Ile Gln  
 115 120 125  
 Gln Thr Ser Tyr Ser Ile Val Leu Glu Pro Gln Gly Gln Thr Gln Thr  
 130 135 140  
 Lys Leu Val Pro Arg Gln Glu Phe Leu Asn Met Val Pro Asp Thr Glu  
 145 150 155 160  
 Ala Glu Val Phe Ile Ser Val Gln Gly Tyr Thr Gln Met Leu Thr His  
 165 170 175  
 Arg Ser Ser Asp Gly Thr Tyr His Thr Ser Lys Gly Asn Pro Gly Ser  
 180 185 190  
 Thr Trp Leu Thr Ser Tyr Val Phe Arg Val Phe Ala Leu Ala Tyr Ser  
 195 200 205  
 Met Met Thr Thr Gln Val Leu Ser Leu Ser Ser Leu Cys Asp Met Ala  
 210 215 220  
 Asn Trp Ile Ile Ile Asp Arg Gln Ala Glu Asp Gly His Phe Leu Glu  
 225 230 235 240  
 Lys Gly Pro Val Val Met Thr Ser Met Gln Asp Gly Tyr Gln Gly Ser  
 245 250 255  
 Glu Glu Asp Val Ser Leu Thr Ala Leu Val Leu Ile Ala Leu Asn Glu  
 260 265 270  
 Gly Lys Glu Leu Cys Arg Gln Lys Asn Leu Met Ala Ser Ile Glu Arg  
 275 280 285  
 Ala Arg Gly Phe Leu Glu Arg Lys Leu Pro Asp Ile Gln Thr Thr Phe  
 290 295 300  
 Ala Val Ala Ile Ala Ser Tyr Ala Leu Ala Leu Ala Asn Ser Ser Gln  
 305 310 315 320  
 Ala Asn Asp Cys Leu Asp Ser Phe Ala Ser Pro Ser Gly Cys Gly Met  
 325 330 335

Leu Leu Asn Gln Pro Gln Ser Trp Ser Gly Glu Gly Val Ile Ser Asn  
 340 345 350

Pro Ala Met Cys Tyr Ser Ser Leu Ser Val Ser  
 355 360

<210> 4959

<211> 359

<212> PRT

<213> Homo sapiens

<400> 4959

Met Pro Pro Thr Ser Ser Thr Pro Ser Leu Ser Arg Pro Gly Leu Gly  
 1 5 10 15

Gln Ala Gly Lys Pro Asp Thr Gly Ser His Pro Pro Pro Thr Ile Ser  
 20 25 30

Thr Ser Ile Phe Leu Ser Cys Phe Pro Thr Ile Pro Leu Ser Arg Pro  
 35 40 45

Arg Thr Thr Gly Pro Ser His Ser Tyr Gln Ser Ile Ser His Pro Arg  
 50 55 60

Ser Cys Arg Asp Val Pro Asp Asp Ile Gln Pro Ile Thr Ser Leu Pro  
 65 70 75 80

Gly Val Ala Arg Tyr Gly Val Lys Arg Leu Glu Glu Met Leu Arg Pro  
 85 90 95

Leu Val Glu Glu Gly Leu Arg Cys Val Leu Ile Phe Gly Val Pro Ser  
 100 105 110

Arg Val Pro Lys Asp Glu Arg Gly Ser Ala Ala Asp Ser Glu Glu Ser  
 115 120 125

Pro Ala Ile Glu Ala Ile His Leu Leu Arg Lys Thr Phe Pro Asn Leu  
 130 135 140

Leu Val Ala Cys Asp Val Cys Leu Cys Pro Tyr Thr Ser His Gly His  
 145 150 155 160

Cys Gly Leu Leu Ser Glu Asn Gly Ala Phe Arg Ala Glu Glu Ser Arg  
 165 170 175

Gln Arg Leu Ala Glu Val Ala Leu Ala Tyr Ala Lys Ala Gly Cys Gln  
 180 185 190

Val Val Ala Pro Ser Asp Met Met Asp Gly Arg Val Glu Ala Ile Lys  
 195 200 205  
 Glu Ala Leu Met Ala His Gly Leu Gly Asn Arg Val Ser Val Met Ser  
 210 215 220  
 Tyr Ser Ala Lys Phe Ala Ser Cys Phe Tyr Gly Pro Phe Arg Asp Ala  
 225 230 235 240  
 Ala Lys Ser Ser Pro Ala Phe Gly Asp Arg Arg Cys Tyr Gln Leu Pro  
 245 250 255  
 Pro Gly Ala Arg Gly Leu Ala Leu Arg Ala Val Asp Arg Asp Val Arg  
 260 265 270  
 Glu Gly Ala Asp Met Leu Met Val Lys Pro Gly Met Leu Tyr Leu Asp  
 275 280 285  
 Ile Val Arg Glu Val Lys Asp Lys His Pro Asp Leu Pro Leu Ala Val  
 290 295 300  
 Tyr His Val Ser Gly Glu Phe Ala Met Leu Trp His Gly Ala Gln Ala  
 305 310 315 320  
 Gly Ala Phe Asp Leu Lys Ala Ala Val Leu Glu Ala Met Thr Ala Phe  
 325 330 335  
 Arg Arg Ala Gly Ala Asp Ile Ile Thr Tyr Tyr Thr Pro Gln Leu  
 340 345 350  
 Leu Gln Trp Leu Lys Glu Glu  
 355

<210> 4960

<211> 508

<212> PRT

<213> Homo sapiens

<400> 4960

Met Met Trp Gly Gly Leu Asp Leu Cys Pro Met Pro Gly Gln Leu  
 1 5 10 15  
 Lys Phe Pro Pro Cys Leu Ser Arg Cys Leu Leu Trp Glu Pro Pro Ser  
 20 25 30  
 Leu Tyr Leu Thr Gln Pro Thr Ser Ser Leu Ala Glu Pro Gln Ala Leu  
 35 40 45

Ile Cys Met Thr Ser Ser Ser Gly Leu Phe Ile Gln Asp Asp Asn  
 50 55 60  
 Met Glu Lys Leu Glu Glu Ile Ile Glu Lys Tyr Pro Arg Ala Phe Pro  
 65 70 75 80  
 Phe Trp Ile Gly Pro Phe Gln Ala Phe Phe Cys Ile Tyr Asp Pro Asp  
 85 90 95  
 Tyr Ala Lys Thr Leu Leu Ser Arg Thr Asp Pro Lys Ser Gln Tyr Leu  
 100 105 110  
 Gln Lys Phe Ser Pro Pro Leu Leu Gly Lys Gly Leu Ala Ala Leu Asp  
 115 120 125  
 Gly Pro Lys Trp Phe Gln His Arg Arg Leu Leu Thr Pro Gly Phe His  
 130 135 140  
 Phe Asn Ile Leu Lys Ala Tyr Ile Glu Val Met Ala His Ser Val Lys  
 145 150 155 160  
 Met Met Leu Asp Lys Trp Glu Lys Ile Cys Ser Thr Gln Asp Thr Ser  
 165 170 175  
 Val Glu Val Tyr Glu His Ile Asn Ser Met Ser Leu Asp Ile Val Met  
 180 185 190  
 Lys Cys Ala Phe Ser Lys Glu Thr Asn Cys Gln Thr Asn Ser Thr His  
 195 200 205  
 Asp Pro Tyr Ala Lys Ala Ile Phe Glu Leu Ser Lys Ile Ile Phe His  
 210 215 220  
 Arg Leu Tyr Ser Leu Leu Tyr His Ser Asp Ile Ile Phe Lys Leu Ser  
 225 230 235 240  
 Pro Gln Gly Tyr Arg Phe Gln Lys Leu Ser Arg Val Leu Asn Gln Tyr  
 245 250 255  
 Thr Asp Thr Ile Ile Gln Glu Arg Lys Lys Ser Leu Gln Ala Gly Val  
 260 265 270  
 Lys Gln Asp Asn Thr Pro Lys Arg Lys Tyr Gln Asp Phe Leu Asp Ile  
 275 280 285  
 Val Leu Ser Ala Lys Asp Glu Ser Gly Ser Ser Phe Ser Asp Ile Asp  
 290 295 300  
 Val His Ser Glu Val Ser Thr Phe Leu Leu Ala Gly His Asp Thr Leu  
 305 310 315 320  
 Ala Ala Ser Ile Ser Trp Ile Leu Tyr Cys Leu Ala Leu Asn Pro Glu  
 325 330 335

His Gln Glu Arg Cys Arg Glu Glu Val Arg Gly Ile Leu Gly Asp Gly  
 340 345 350  
 Ser Ser Ile Thr Trp Asp Gln Leu Gly Glu Met Ser Tyr Thr Thr Met  
 355 360 365  
 Cys Ile Lys Glu Thr Cys Arg Leu Ile Pro Ala Val Pro Ser Ile Ser  
 370 375 380  
 Arg Asp Leu Ser Lys Pro Leu Thr Phe Pro Asp Gly Cys Thr Leu Pro  
 385 390 395 400  
 Ala Gly Ile Thr Val Val Leu Ser Ile Trp Gly Leu His His Asn Pro  
 405 410 415  
 Ala Val Trp Lys Asn Pro Lys Val Phe Asp Pro Leu Arg Phe Ser Gln  
 420 425 430  
 Glu Asn Ser Asp Gln Arg His Pro Tyr Ala Tyr Leu Pro Phe Ser Ala  
 435 440 445  
 Gly Ser Arg Asn Cys Ile Gly Gln Glu Phe Ala Met Ile Glu Leu Lys  
 450 455 460  
 Val Thr Ile Ala Leu Ile Leu Leu His Phe Arg Val Thr Pro Asp Pro  
 465 470 475 480  
 Thr Arg Pro Leu Thr Phe Pro Asn His Phe Ile Leu Lys Pro Lys Asn  
 485 490 495  
 Gly Met Tyr Leu His Leu Lys Lys Leu Ser Glu Cys  
 500 505

&lt;210&gt; 4961

&lt;211&gt; 1264

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4961

Met Cys Lys Lys Leu Thr Lys Leu Ala Lys Glu Asn Asp Ser Met Lys  
 1 5 10 15  
 Glu Glu Leu Leu Lys Tyr Arg Ser Leu Tyr Gly Asp Leu Asp Ser Ala  
 20 25 30  
 Leu Ser Ala Glu Glu Leu Ala Asp Ala Pro His Ser Arg Glu Thr Glu  
 35 40 45

Leu Lys Val His Leu Lys Leu Val Glu Glu Glu Ala Asn Leu Leu Ser  
 50 55 60  
 Arg Arg Ile Val Glu Leu Glu Val Glu Asn Arg Gly Leu Arg Ala Glu  
 65 70 75 80  
 Met Asp Asp Met Lys Asp His Gly Gly Cys Gly Pro Glu Ala  
 85 90 95  
 Arg Leu Ala Phe Ser Ala Leu Gly Gly Glu Cys Gly Ser Leu  
 100 105 110  
 Ala Glu Leu Arg Arg His Leu Gln Phe Val Glu Glu Ala Glu Leu  
 115 120 125  
 Leu Arg Arg Ser Ser Ala Glu Leu Glu Asp Gln Asn Lys Leu Leu  
 130 135 140  
 Asn Glu Leu Ala Lys Phe Arg Ser Glu His Glu Leu Asp Val Ala Leu  
 145 150 155 160  
 Ser Glu Asp Ser Cys Ser Val Leu Ser Glu Pro Ser Gln Glu Glu Leu  
 165 170 175  
 Ala Ala Ala Lys Leu Gln Ile Gly Glu Leu Ser Gly Lys Val Lys  
 180 185 190  
 Leu Gln Tyr Glu Asn Arg Val Leu Leu Ser Asn Leu Gln Arg Cys Asp  
 195 200 205  
 Leu Ala Ser Cys Gln Ser Thr Arg Pro Met Leu Glu Thr Asp Ala Glu  
 210 215 220  
 Ala Gly Asp Ser Ala Gln Cys Val Pro Ala Pro Leu Gly Glu Thr His  
 225 230 235 240  
 Glu Ser His Ala Val Arg Leu Cys Arg Ala Arg Glu Ala Glu Val Leu  
 245 250 255  
 Pro Gly Leu Arg Glu Gln Ala Ala Leu Val Ser Lys Ala Ile Asp Val  
 260 265 270  
 Leu Val Ala Asp Ala Asn Gly Phe Thr Ala Gly Leu Arg Leu Cys Leu  
 275 280 285  
 Asp Asn Glu Cys Ala Asp Phe Arg Leu His Glu Ala Pro Asp Asn Ser  
 290 295 300  
 Glu Gly Pro Arg Asp Thr Lys Leu Ile His Ala Ile Leu Val Arg Leu  
 305 310 315 320  
 Ser Val Leu Gln Gln Glu Leu Asn Ala Phe Thr Arg Lys Ala Asp Ala  
 325 330 335

Val Leu Gly Cys Ser Val Lys Glu Gln Gln Glu Ser Phe Ser Ser Leu  
 340 345 350  
 Pro Pro Leu Gly Ser Gln Gly Leu Ser Lys Glu Ile Leu Leu Ala Lys  
 355 360 365  
 Asp Leu Gly Ser Asp Phe Gln Pro Pro Asp Phe Arg Asp Leu Pro Glu  
 370 375 380  
 Trp Glu Pro Arg Ile Arg Glu Ala Phe Arg Thr Gly Asp Leu Asp Ser  
 385 390 395 400  
 Lys Pro Asp Pro Ser Arg Ser Phe Arg Pro Tyr Arg Ala Glu Asp Asn  
 405 410 415  
 Asp Ser Tyr Ala Ser Glu Ile Lys Glu Leu Gln Leu Val Leu Ala Glu  
 420 425 430  
 Ala His Asp Ser Leu Arg Gly Leu Gln Glu Gln Leu Ser Gln Glu Arg  
 435 440 445  
 Gln Leu Arg Lys Glu Glu Ala Asp Asn Phe Asn Gln Lys Met Val Gln  
 450 455 460  
 Leu Lys Glu Asp Gln Gln Arg Ala Leu Leu Arg Arg Glu Phe Glu Leu  
 465 470 475 480  
 Gln Ser Leu Ser Leu Gln Arg Arg Leu Glu Gln Lys Phe Trp Ser Gln  
 485 490 495  
 Glu Lys Asn Met Leu Val Gln Glu Ser Gln Gln Phe Lys His Asn Phe  
 500 505 510  
 Leu Leu Leu Phe Met Lys Leu Arg Trp Phe Leu Lys Arg Trp Arg Gln  
 515 520 525  
 Gly Lys Val Leu Pro Ser Glu Gly Asp Asp Phe Leu Glu Val Asn Ser  
 530 535 540  
 Met Lys Val Leu Tyr Leu Leu Met Glu Glu Glu Glu Ile Asn Ala Gln  
 545 550 555 560  
 His Ser Asp Asn Lys Ala Cys Thr Gly Asp Ser Trp Thr Gln Asn Thr  
 565 570 575  
 Pro Asn Glu Tyr Ile Lys Thr Leu Ala Asp Met Lys Val Thr Leu Lys  
 580 585 590  
 Glu Leu Cys Trp Leu Leu Arg Asp Glu Arg Arg Gly Leu Thr Glu Leu  
 595 600 605  
 Gln Gln Gln Phe Ala Lys Ala Lys Ala Thr Trp Glu Thr Glu Arg Ala  
 610 615 620

Glu Leu Lys Gly His Thr Ser Gln Met Glu Leu Lys Thr Gly Lys Gly  
 625 630 635 640  
 Ala Gly Glu Arg Ala Gly Pro Asp Trp Lys Ala Ala Leu Gln Arg Glu  
 645 650 655  
 Arg Glu Glu Gln Gln His Leu Leu Ala Glu Ser Tyr Ser Ala Val Met  
 660 665 670  
 Glu Leu Thr Arg Gln Leu Gln Ile Ser Glu Arg Asn Trp Ser Gln Glu  
 675 680 685  
 Lys Leu Gln Leu Val Glu Arg Leu Gln Gly Glu Lys Gln Gln Val Glu  
 690 695 700  
 Gln Gln Val Lys Glu Leu Gln Asn Arg Leu Ser Gln Leu Gln Lys Ala  
 705 710 715 720  
 Ala Asp Pro Trp Val Leu Lys His Ser Glu Leu Glu Lys Gln Asp Asn  
 725 730 735  
 Ser Trp Lys Glu Thr Arg Ser Glu Lys Ile His Asp Lys Glu Ala Val  
 740 745 750  
 Ser Glu Val Glu Leu Gly Gly Asn Gly Leu Lys Arg Thr Lys Ser Val  
 755 760 765  
 Ser Ser Met Ser Glu Phe Glu Ser Leu Leu Asp Cys Ser Pro Tyr Leu  
 770 775 780  
 Ala Gly Gly Asp Ala Arg Gly Lys Lys Leu Pro Asn Asn Pro Ala Phe  
 785 790 795 800  
 Gly Phe Val Ser Ser Glu Pro Gly Asp Pro Glu Lys Asp Thr Lys Glu  
 805 810 815  
 Lys Pro Gly Leu Ser Ser Arg Asp Cys Asn His Leu Gly Ala Leu Ala  
 820 825 830  
 Cys Gln Asp Pro Pro Gly Arg Gln Met Gln Arg Ser Tyr Thr Ala Pro  
 835 840 845  
 Asp Lys Thr Gly Ile Arg Val Tyr Tyr Ser Pro Pro Val Ala Arg Arg  
 850 855 860  
 Leu Gly Val Pro Val Val His Asp Lys Glu Gly Lys Ile Ile Ile Glu  
 865 870 875 880  
 Pro Gly Phe Leu Phe Thr Thr Ala Lys Pro Lys Glu Ser Ala Glu Ala  
 885 890 895  
 Asp Gly Leu Ala Glu Ser Ser Tyr Gly Arg Trp Leu Cys Asn Phe Ser  
 900 905 910

Arg Gln Arg Leu Asp Gly Gly Ser Ala Gly Ser Pro Ser Ala Ala Gly  
 915 920 925  
 Pro Gly Phe Pro Ala Ala Leu His Asp Phe Glu Met Ser Gly Asn Met  
 930 935 940  
 Ser Asp Asp Met Lys Glu Ile Thr Asn Cys Val Arg Gln Ala Met Arg  
 945 950 955 960  
 Ser Gly Ser Leu Glu Arg Lys Val Lys Ser Thr Ser Ser Gln Thr Val  
 965 970 975  
 Gly Leu Ala Ser Val Gly Thr Gln Thr Ile Arg Thr Val Ser Val Gly  
 980 985 990  
 Leu Gln Thr Asp Pro Pro Arg Ser Ser Leu His Gly Lys Ala Trp Ser  
 995 1000 1005  
 Pro Arg Ser Ser Ser Leu Val Ser Val Arg Ser Lys Gln Ile Ser Ser  
 1010 1015 1020  
 Ser Leu Asp Lys Val His Ser Arg Ile Glu Arg Pro Cys Cys Ser Pro  
 1025 1030 1035 1040  
 Lys Tyr Gly Ser Pro Lys Leu Gln Arg Arg Ser Val Ser Lys Leu Asp  
 1045 1050 1055  
 Ser Ser Lys Asp Arg Ser Leu Trp Asn Leu His Gln Gly Lys Gln Asn  
 1060 1065 1070  
 Gly Ser Ala Trp Ala Arg Ser Thr Thr Thr Arg Asp Ser Pro Val Leu  
 1075 1080 1085  
 Arg Asn Ile Asn Asp Gly Leu Ser Ser Leu Phe Ser Val Val Glu His  
 1090 1095 1100  
 Ser Gly Ser Thr Glu Ser Val Trp Lys Leu Gly Met Ser Glu Thr Arg  
 1105 1110 1115 1120  
 Ala Lys Pro Glu Pro Pro Lys Tyr Gly Ile Val Gln Glu Phe Phe Arg  
 1125 1130 1135  
 Asn Ala Cys Gly Arg Ala Pro Ser Pro Thr Ser Ser Ala Gly Glu Glu  
 1140 1145 1150  
 Gly Thr Lys Lys Pro Glu Pro Leu Ser Pro Ala Ser Tyr His Gln Pro  
 1155 1160 1165  
 Glu Gly Val Ala Arg Ile Leu Asn Lys Lys Ala Ala Lys Leu Gly Ser  
 1170 1175 1180  
 Ser Glu Glu Val Arg Leu Thr Met Leu Pro Gln Val Gly Lys Asp Gly  
 1185 1190 1195 1200

Val Leu Arg Asp Gly Asp Gly Ala Val Val Leu Pro Asn Glu Asp Ala  
 1205 1210 1215  
 Val Cys Asp Cys Ser Thr Gln Ser Leu Thr Ser Cys Phe Ala Arg Ser  
 1220 1225 1230  
 Ser Arg Ser Ala Ile Arg His Ser Pro Ser Lys Cys Arg Leu His Pro  
 1235 1240 1245  
 Ser Glu Ser Ser Trp Gly Gly Glu Glu Arg Ala Leu Pro Pro Ser Glu  
 1250 1255 1260

<210> 4962

<211> 633

<212> PRT

<213> Homo sapiens

<400> 4962

Met Glu Ser Gly Pro Lys Met Leu Ala Pro Val Cys Leu Val Glu Asn  
 1 5 10 15  
 Asn Asn Glu Gln Leu Leu Val Asn Gln Gln Ala Ile Gln Ile Leu Glu  
 20 25 30  
 Lys Ile Ser Gln Pro Val Val Val Ala Ile Val Gly Leu Tyr Arg  
 35 40 45  
 Thr Gly Lys Ser Tyr Leu Met Asn His Leu Ala Gly Gln Asn His Gly  
 50 55 60  
 Phe Pro Leu Gly Ser Thr Val Gln Ser Glu Thr Lys Gly Ile Trp Met  
 65 70 75 80  
 Trp Cys Val Pro His Pro Ser Lys Pro Asn His Thr Leu Val Leu Leu  
 85 90 95  
 Asp Thr Glu Gly Leu Gly Asp Val Glu Lys Gly Asp Pro Lys Asn Asp  
 100 105 110  
 Ser Trp Ile Phe Ala Leu Ala Val Leu Leu Cys Ser Thr Phe Val Tyr  
 115 120 125  
 Asn Ser Met Ser Thr Ile Asn His Gln Ala Leu Glu Gln Leu His Tyr  
 130 135 140  
 Val Thr Glu Leu Thr Glu Leu Ile Lys Ala Lys Ser Ser Pro Arg Pro  
 145 150 155 160

Asp Gly Val Glu Asp Ser Thr Glu Phe Val Ser Phe Phe Pro Asp Phe  
                  165                 170                 175  
 Leu Trp Thr Val Arg Asp Phe Thr Leu Glu Leu Lys Leu Asn Gly His  
                  180                 185                 190  
 Pro Ile Thr Glu Asp Glu Tyr Leu Glu Ala Leu Lys Leu Ile Gln  
                  195                 200                 205  
 Gly Asn Asn Pro Arg Val Gln Thr Ser Asn Phe Pro Arg Glu Cys Ile  
                  210                 215                 220  
 Arg Arg Phe Phe Pro Lys Arg Lys Cys Phe Val Phe Asp Arg Pro Thr  
                  225                 230                 235                 240  
 Asn Asp Lys Asp Leu Leu Ala Asn Ile Glu Lys Val Ser Glu Lys Gln  
                  245                 250                 255  
 Leu Asp Pro Lys Phe Gln Glu Gln Thr Asn Ile Phe Cys Ser Tyr Ile  
                  260                 265                 270  
 Phe Thr His Ala Arg Thr Lys Thr Leu Arg Glu Gly Ile Thr Val Thr  
                  275                 280                 285  
 Gly Asn Arg Leu Gly Thr Leu Ala Val Thr Tyr Val Glu Ala Ile Asn  
                  290                 295                 300  
 Ser Gly Ala Val Pro Cys Leu Glu Asn Ala Val Ile Thr Leu Ala Gln  
                  305                 310                 315                 320  
 Arg Glu Asn Ser Ala Ala Val Gln Arg Ala Ala Asp Tyr Tyr Ser Gln  
                  325                 330                 335  
 Gln Met Ala Gln Arg Val Lys Leu Pro Thr Asp Thr Leu Gln Glu Leu  
                  340                 345                 350  
 Leu Asp Met His Ala Ala Cys Glu Arg Glu Ala Ile Ala Ile Phe Met  
                  355                 360                 365  
 Glu His Ser Phe Lys Asp Glu Asn Gln Glu Phe Gln Lys Lys Phe Met  
                  370                 375                 380  
 Glu Thr Thr Met Asn Lys Lys Gly Asp Phe Leu Leu Gln Asn Glu Glu  
                  385                 390                 395                 400  
 Ser Ser Val Gln Tyr Cys Gln Ala Lys Leu Asn Glu Leu Ser Lys Gly  
                  405                 410                 415  
 Leu Met Glu Ser Ile Ser Ala Gly Ser Phe Ser Val Pro Gly Gly His  
                  420                 425                 430  
 Lys Leu Tyr Met Glu Thr Lys Glu Arg Ile Glu Gln Asp Tyr Trp Gln  
                  435                 440                 445

Val Pro Arg Lys Gly Val Lys Ala Lys Glu Val Phe Gln Arg Phe Leu  
 450 455 460  
 Glu Ser Gln Met Val Ile Glu Glu Ser Ile Leu Gln Ser Asp Lys Ala  
 465 470 475 480  
 Leu Thr Asp Arg Glu Lys Ala Val Ala Val Asp Arg Ala Lys Lys Glu  
 485 490 495  
 Ala Ala Glu Lys Glu Gln Glu Leu Leu Lys Gln Lys Leu Gln Glu Gln  
 500 505 510  
 Gln Gln Gln Met Glu Ala Gln Asp Lys Ser Arg Lys Glu Asn Ile Ala  
 515 520 525  
 Gln Leu Lys Glu Lys Leu Gln Met Glu Arg Glu His Leu Leu Arg Glu  
 530 535 540  
 Gln Ile Met Met Leu Glu His Thr Gln Lys Val Gln Asn Asp Trp Leu  
 545 550 555 560  
 His Glu Gly Phe Lys Lys Tyr Glu Glu Met Asn Ala Glu Ile Ser  
 565 570 575  
 Gln Phe Lys Arg Met Ile Asp Thr Thr Lys Asn Asp Asp Thr Pro Trp  
 580 585 590  
 Ile Ala Arg Thr Leu Asp Asn Leu Ala Asp Glu Leu Thr Ala Ile Leu  
 595 600 605  
 Ser Ala Pro Ala Lys Leu Ile Gly His Gly Val Lys Gly Val Ser Ser  
 610 615 620  
 Leu Phe Lys Lys His Lys Leu Pro Phe  
 625 630

<210> 4963

<211> 779

<212> PRT

<213> Homo sapiens

<400> 4963

Met Leu Pro Cys His Ser Pro Ser Arg Ser Asp Gln Val Asn Leu Gly  
 1 5 10 15  
 Pro Ser Ile Asn Ser Lys Leu Leu Gly Met Ser Thr Gln Asn Tyr Ala  
 20 25 30



Asn His Lys Thr Lys Leu Asn Ser Gly Ala Ala Lys Arg Lys Gly Arg			
325	330	335	
Lys Arg Lys Val Pro Asp Glu Ile Leu Ala Phe Gln Gly Lys Arg Arg			
340	345	350	
Lys Tyr Ile Ile Asn Lys Cys Arg Asp Gly Lys Glu Arg Val Lys Asn			
355	360	365	
Asp Pro Gln Glu Phe Arg Asp Gln Lys Leu Gly Thr Leu Lys Lys Tyr			
370	375	380	
Arg Ser Ile Met Pro Lys Pro Ile Met Val Ile Pro Thr Leu Ala Ser			
385	390	395	400
Leu Ala Ser Pro Thr Thr Leu Gln Ser Gln Met Leu Gly Gly Leu Gly			
405	410	415	
Gln Asp Val Leu Leu Asn Asn Ser Leu Thr Pro Lys Tyr Leu Gly Cys			
420	425	430	
Lys Gln Asp Asn Ser Ser Ser Pro Lys Pro Ser Ser Val Phe Arg Asn			
435	440	445	
Gly Phe Ser Gly Ile Lys Lys Pro Trp His Arg Cys His Val Cys Asn			
450	455	460	
His His Phe Gln Phe Lys Gln His Leu Arg Asp His Met Asn Thr His			
465	470	475	480
Thr Asn Arg Arg Pro Tyr Ser Cys Arg Ile Cys Arg Lys Ser Tyr Val			
485	490	495	
Arg Pro Gly Ser Leu Ser Thr His Met Lys Leu His His Gly Glu Asn			
500	505	510	
Arg Leu Lys Lys Leu Met Cys Cys Glu Phe Cys Ala Lys Val Phe Gly			
515	520	525	
His Ile Arg Val Tyr Phe Gly His Leu Lys Glu Val His Arg Val Val			
530	535	540	
Ile Ser Thr Glu Pro Ala Pro Ser Glu Leu Gln Pro Gly Asp Ile Pro			
545	550	555	560
Lys Asn Arg Asp Met Ser Val Arg Gly Met Glu Gly Ser Leu Glu Arg			
565	570	575	
Glu Asn Lys Ser Asn Leu Glu Glu Asp Phe Leu Leu Asn Gln Ala Asp			
580	585	590	
Glu Val Lys Leu Gln Ile Lys Cys Gly Arg Cys Gln Ile Thr Ala Gln			
595	600	605	

Ser Phe Ala Glu Ile Lys Phe His Leu Leu Gly Val His Gly Glu Glu  
 610 615 620  
 Ile Glu Gly Arg Leu Gln Glu Gly Thr Phe Pro Gly Ser Lys Gly Thr  
 625 630 635 640  
 Gln Glu Glu Leu Val Gln His Ala Ser Pro Asp Trp Lys Arg His Pro  
 645 650 655  
 Glu Arg Gly Lys Pro Glu Lys Val His Ser Ser Ser Glu Glu Ser His  
 660 665 670  
 Ala Cys Pro Arg Leu Lys Arg Gln Leu His Leu His Gln Asn Gly Val  
 675 680 685  
 Glu Met Leu Met Glu Asn Glu Gly Pro Gln Ser Gly Thr Asn Lys Pro  
 690 695 700  
 Arg Glu Thr Cys Gln Gly Pro Glu Cys Pro Gly Leu His Thr Phe Leu  
 705 710 715 720  
 Leu Trp Ser His Ser Gly Phe Asn Cys Leu Leu Cys Ala Glu Met Leu  
 725 730 735  
 Gly Arg Lys Glu Asp Leu Leu His His Trp Lys His Gln His Asn Cys  
 740 745 750  
 Glu Asp Pro Ser Lys Leu Trp Ala Ile Leu Asn Thr Val Ser Asn Gln  
 755 760 765  
 Gly Val Ile Glu Leu Ser Ser Glu Ala Glu Lys  
 770 775

&lt;210&gt; 4964

&lt;211&gt; 353

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4964

Met Glu Phe Arg Lys Thr Met Asp Ile Asp His Thr Leu Asp Trp Gln  
 1 5 10 15  
 Pro Pro Glu Val Ile Gln Lys Tyr Met Pro Gly Gly Leu Cys Gly Tyr  
 20 25 30  
 Asp Arg Asp Gly Cys Pro Val Trp Tyr Asp Ile Thr Gly Pro Leu Asp

35	40	45
Pro Lys Gly Leu Leu Phe Ser Val Thr Lys Gln Asp Leu Leu Lys Thr		
50	55	60
Lys Met Arg Asp Cys Glu Arg Ile Leu His Glu Cys Asp Leu Gln Thr		
65	70	75
Glu Arg Leu Gly Lys Lys Ile Glu Thr Ile Val Met Ile Phe Asp Cys		
85	90	95
Glu Gly Leu Gly Leu Lys His Phe Trp Lys Pro Leu Val Glu Val Tyr		
100	105	110
Gln Glu Phe Phe Gly Leu Leu Glu Glu Asn Tyr Pro Glu Thr Leu Lys		
115	120	125
Phe Met Leu Ile Val Lys Ala Thr Lys Leu Phe Pro Val Gly Tyr Asn		
130	135	140
Leu Met Lys Pro Phe Leu Ser Glu Asp Thr Arg Arg Lys Ile Ile Val		
145	150	155
Leu Gly Asn Asn Trp Lys Glu Gly Leu Leu Lys Leu Ile Ser Pro Glu		
165	170	175
Glu Leu Pro Ala Gln Phe Gly Gly Thr Leu Thr Asp Pro Asp Gly Asn		
180	185	190
Pro Lys Cys Leu Thr Lys Ile Asn Tyr Gly Gly Glu Ile Pro Lys Ser		
195	200	205
Met Tyr Val Arg Asp Gln Val Lys Thr Gln Tyr Glu His Ser Val Gln		
210	215	220
Ile Asn Arg Gly Ser Ser His Gln Val Glu Tyr Glu Ile Leu Phe Pro		
225	230	235
Gly Cys Val Leu Arg Trp Gln Phe Ser Ser Asp Gly Ala Asp Ile Gly		
245	250	255
Phe Gly Val Phe Leu Lys Thr Lys Met Gly Glu Arg Gln Arg Ala Gly		
260	265	270
Glu Met Thr Glu Val Leu Pro Ser Gln Arg Tyr Asn Ala His Met Val		
275	280	285
Pro Glu Asp Gly Asn Leu Thr Cys Ser Glu Ala Gly Val Tyr Val Glu		
290	295	300
Ser Glu Ser Gly Lys Ser Cys Cys His Leu Pro Val Ile Ile Cys Ser		
305	310	315
His Glu Leu Gln Asn Ser His Ser Asn Ser Gln Val Met Ala Tyr Gln		

325

330

335

Met Val Arg Lys Cys Lys Leu Ser Arg Pro Leu Pro Leu Pro Ala Ser

340

345

350

Asn

&lt;210&gt; 4965

&lt;211&gt; 606

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4965

Met Cys Leu Glu Lys Arg Tyr Leu Asp Val Leu Ser Asp Val Thr Gly

1

5

10

15

Pro Gln Val Ser Cys Tyr Ile Thr Ala Pro Ser Tyr Val Leu Gln Gln

20

25

30

Leu Glu Cys Arg Ile Ile Asn His Met Ser Ser Leu Ile Val Gly Asp

35

40

45

Asn Glu Glu Leu Val Ser Asn Val Ile Thr Ile Glu Cys Ser Asp Lys

50

55

60

Glu Lys Arg Val Pro Phe Pro Ile Gly Ile Ala Ile Pro Phe Thr Ala

65

70

75

80

Arg Tyr Arg Gly Asn Tyr Arg Asp Ile Met Val Lys Val Cys Asp Ile

85

90

95

Asn Leu Gln Ser Ser Tyr Leu Asn Pro Asn Ser Leu Glu Gly Met Lys

100

105

110

Gly Gly Tyr Lys Gly Thr Cys Ala Ser Val Lys Val Tyr Lys Leu Gly

115

120

125

Ile Phe Ser Val Val Ser Cys Leu Lys Lys Glu Ser Phe Thr Val Thr

130

135

140

Lys Lys Gly Leu Ala Leu Lys Ser Ser Met Asp Ser Arg Ile Ser Leu

145

150

155

160

Asn Tyr Pro Pro Gly Val Phe Thr Ser Pro Val Leu Val Gln Leu Lys

165

170

175

Ile Gln Pro Val Asp Pro Ala Leu Val Ala His Leu Lys Ala Gln Gln

180	185	190
Asp Thr Phe Tyr Ser Val Gln Ser Thr Ser Pro Leu Ile His Ile Gln		
195	200	205
His Pro Ser Thr Tyr Pro Phe Gln Lys Pro Val Thr Leu Phe Leu Pro		
210	215	220
Cys Ser Pro Tyr Leu Asp Lys Asn Asn Leu Gly Ser Glu Ile Asp His		
225	230	235
Lys Arg Arg Ala Ser Ala Thr Ile Asn Arg Ile Thr Pro Ser Tyr Phe		
245	250	255
Asn Arg Thr Lys Ile Ala Ser Ile Arg Lys Pro Arg Lys Asn Ala Ser		
260	265	270
Glu Cys Leu Lys Leu Leu Gly Phe Arg Ser Gln Asp Ser Gly Trp Cys		
275	280	285
Gly Leu Asp Asp Val Val Lys Thr Ile Gln Ser Gly Leu Val Ser Val		
290	295	300
Glu Leu Tyr Glu His Leu Glu Arg Phe Ile Val Leu His Leu Ser Ser		
305	310	315
Thr Met Asp Asn Ser His Leu Val Thr Phe Val Lys Ser Leu Glu Glu		
325	330	335
Ala Met Leu Ser Thr Thr Ala Cys Ile Val Leu Ser His Gln Lys Asp		
340	345	350
Asn Pro His Arg Ile Ala Val Leu Val Val Pro Ser Lys Asp Leu Ser		
355	360	365
Gln Val Leu Lys Asp Leu His Leu Glu Gly Phe Gly Gly Pro Pro Glu		
370	375	380
Pro Ser Arg His Phe Gln Val Arg Glu Gly Glu Gln Leu Leu Leu Arg		
385	390	395
Phe Thr Gly Asn Ile Phe Ala Ser Ser Asn Gly Lys Asp Tyr Gly Lys		
405	410	415
Asp Tyr Thr Leu Ile Phe His Leu Gln Arg Lys Pro Arg Leu Glu Leu		
420	425	430
Gln Ile Lys Glu Val Asp Glu Phe Gly Asn Tyr Ser Cys Pro His Tyr		
435	440	445
Lys Gly Thr Ile Val Val Tyr Lys Val Pro Lys Gly Lys Ile Val Pro		
450	455	460
Asn Leu Asn Gln Ser Leu Val Ile Asn Glu Asn His Ser Gln Leu Pro		

465	470	475	480
Ile Cys Lys Leu Pro Leu Lys Leu Pro Lys His Lys Lys Leu Ile Asn			
485	490	495	
His Pro Gln Ser Thr Lys Arg Val Ser Lys Asp Pro Val Glu Ala Leu			
500	505	510	
Trp Asp Asn Leu Leu His Trp Leu Ala Glu Glu Leu Ser Glu Glu Asn			
515	520	525	
Ala Glu Ser Leu Ser Ser Thr Leu Pro Leu Arg Arg Ser Thr Ile Gln			
530	535	540	
Leu Ile Lys Leu Lys Asn Pro Asp Asp Leu Thr Glu Gln Ile His Glu			
545	550	555	560
Phe Leu Cys Phe Trp Lys Lys Ser Leu Pro Thr Phe Thr Asp Lys Leu			
565	570	575	
Arg Leu Leu Ala Arg His Leu Arg Lys Ile Gly Arg Ser Asp Leu Ala			
580	585	590	
Glu Glu Leu Lys Phe Lys Trp Glu Asn Lys Val Phe Thr Glu			
595	600	605	

<210> 4966

<211> 151

<212> PRT

<213> Homo sapiens

<400> 4966

Met Ala Thr Ile Thr Met Gln Ala Tyr Ser Arg Gly Phe Leu Ala Arg			
1	5	10	15
Arg Arg Tyr Arg Lys Met Leu Glu Glu His Lys Ala Val Ile Leu Gln			
20	25	30	
Lys Tyr Ala Arg Ala Trp Leu Ala Arg Arg Arg Phe Gln Ser Ile Arg			
35	40	45	
Arg Phe Val Leu Asn Ile Gln Leu Thr Tyr Arg Val Gln Arg Leu Gln			
50	55	60	
Lys Lys Leu Glu Asp Gln Asn Lys Glu Asn His Gly Leu Val Glu Lys			
65	70	75	80
Leu Thr Ser Leu Ala Ala Leu Arg Ala Gly Asp Val Glu Lys Ile Gln			

85	90	95
Lys Leu Glu Ala Glu Leu Glu Lys Ala Ala Thr His Arg Arg Asn Tyr		
100	105	110
Glu Glu Lys Gly Lys Arg Tyr Arg Asp Ala Val Glu Glu Val Ser Cys		
115	120	125
Gly Arg Val Arg Arg Asp Gly Asn Met Arg Thr Leu Cys Glu Lys Asp		
130	135	140
Glu Arg Cys Gln Leu Phe Leu		
145	150	

&lt;210&gt; 4967

&lt;211&gt; 731

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4967

Met Met Gln Ala Gln Glu Ser Leu Thr Leu Glu Asp Val Ala Val Asp			
1	5	10	15
Phe Thr Trp Glu Glu Trp Gln Phe Leu Ser Pro Ala Gln Lys Asp Leu			
20	25	30	
Tyr Arg Asp Val Met Leu Glu Asn Tyr Ser Asn Leu Val Ala Val Gly			
35	40	45	
Tyr Gln Ala Ser Lys Pro Asp Ala Leu Ser Lys Leu Glu Arg Gly Glu			
50	55	60	
Glu Thr Cys Thr Thr Glu Asp Glu Ile Tyr Ser Arg Ile Cys Ser Glu			
65	70	75	80
Ile Arg Lys Ile Asp Asp Pro Leu Gln His His Leu Gln Asn Gln Ser			
85	90	95	
Ile Gln Lys Ser Val Lys Gln Cys His Glu Gln Asn Met Phe Gly Asn			
100	105	110	
Ile Val Asn Gln Asn Lys Gly His Phe Leu Leu Lys Gln Asp Cys Asp			
115	120	125	
Thr Phe Asp Leu His Glu Lys Pro Leu Lys Ser Asn Leu Ser Phe Glu			
130	135	140	
Asn Gln Lys Arg Ser Ser Gly Leu Lys Asn Ser Ala Glu Phe Asn Arg			

145	150	155	160
Asp	Gly	Lys	Ser
Leu	Phe	His	Ala
Asn	His	Gln	Phe
			Tyr
			Thr
			Glu
165		170	
Met	Phe	Pro	Ala
Ile	Ala	Lys	Pro
Ile		Asn	Ile
		Lys	
			Gln
			Phe
180		185	
Lys	Gln	Arg	Thr
His	Asn	Ile	Glu
		Asn	Ala
		His	Val
			Cys
			Ser
195		200	
Cys	Gly	Lys	Ala
Phe	Leu	Lys	Leu
Ser		Gln	Phe
			Ile
			Asp
			His
			Gln
			Arg
210		215	
Val	His	Thr	Gly
			Glu
			Lys
			Pro
			His
			Val
			Cys
			Ser
			Met
			Cys
			Gly
			Lys
225		230	
Phe	Ser	Arg	Lys
Ser	Arg	Leu	Met
			Asp
			His
			Gln
			Arg
			Thr
			His
245		250	
Leu	Lys	His	Tyr
			Glu
			Cys
			Asp
			Lys
			Thr
			Phe
			Leu
			Lys
260		265	
Ser	Gln	Leu	Asn
			Ile
			His
			Gln
			Lys
			Thr
			His
			Gly
			Glu
			Lys
275		280	
Thr	Cys	Ser	Gln
			Cys
			Gly
			Lys
			Ala
			Phe
			Ile
			Lys
			Cys
			Arg
			Leu
			Ile
290		295	
Tyr	His	Gln	Arg
			Thr
			His
			Thr
			Gly
			Glu
			Lys
			Pro
			His
			Gly
			Cys
			Ser
305		310	
Cys	Gly	Lys	Ala
			Phe
			Ser
			Thr
			Lys
			Phe
			Ser
			Leu
			Thr
			Thr
			His
			Gln
			Lys
325		330	
Thr	His	Thr	Gly
			Glu
			Lys
			Pro
			Tyr
			Ile
			Cys
			Ser
			Glu
			Cys
			Gly
			Lys
340		345	
Phe	Ile	Glu	Lys
			Arg
			Arg
			Leu
			Thr
			Ala
			His
			His
			Arg
			Thr
			Gly
355		360	
Glu	Lys	Pro	Phe
			Ile
			Cys
			Asn
			Lys
			Cys
			Gly
			Lys
			Gly
			Phe
			Thr
			Leu
			Lys
370		375	
Asn	Ser	Leu	Ile
			Thr
			His
			Gln
			Gln
			Thr
			His
			Gly
			Glu
			Lys
385		390	
Thr	Cys	Ser	Glu
			Cys
			Gly
			Lys
			Gly
			Phe
			Ser
			Met
			Lys
			His
			Cys
			Leu
			Met
405		410	
Val	His	Gln	Arg
			Thr
			His
			Thr
			Gly
			Glu
			Lys
			Pro
			Tyr
			Lys
			Cys
			Asn
			Glu
420		425	
Cys	Gly	Lys	Gly
			Phe
			Ala
			Leu
			Lys
			Ser
			Pro
			Leu
			Ile
			Arg
			His
			Gln
			Arg

435	440	445	
Thr His Thr Gly Glu Lys Pro Tyr Val Cys Thr Glu Cys Arg Lys Gly			
450	455	460	
Phe Thr Met Lys Ser Asp Leu Ile Val His Gln Arg Thr His Thr Ala			
465	470	475	480
Glu Lys Pro Tyr Ile Cys Asn Asp Cys Gly Lys Gly Phe Thr Val Lys			
485	490	495	
Ser Arg Leu Ile Val His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr			
500	505	510	
Val Cys Gly Glu Cys Gly Lys Gly Phe Pro Ala Lys Ile Arg Leu Met			
515	520	525	
Gly His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Ile Cys Asn Glu			
530	535	540	
Cys Gly Lys Gly Phe Thr Glu Lys Ser His Leu Asn Val His Arg Arg			
545	550	555	560
Thr His Thr Gly Glu Lys Pro Tyr Val Cys Ser Glu Cys Gly Lys Asp			
565	570	575	
Leu Thr Gly Lys Ser Met Leu Ile Ala His Gln Arg Thr His Thr Gly			
580	585	590	
Glu Lys Pro Tyr Ile Cys Asn Glu Cys Gly Lys Gly Phe Thr Met Lys			
595	600	605	
Ser Thr Leu Ser Ile His Gln Gln Thr His Thr Gly Glu Lys Pro Tyr			
610	615	620	
Lys Cys Asn Glu Cys Asp Lys Thr Phe Arg Lys Lys Thr Cys Leu Ile			
625	630	635	640
Gln His Gln Arg Phe His Thr Gly Lys Thr Ser Phe Ala Cys Thr Glu			
645	650	655	
Cys Gly Lys Phe Ser Leu Arg Lys Asn Asp Leu Ile Thr His Gln Arg			
660	665	670	
Ile His Thr Gly Glu Lys Pro Tyr Lys Cys Ser Asp Cys Gly Lys Ala			
675	680	685	
Phe Thr Thr Lys Ser Gly Leu Asn Val His Gln Arg Lys His Thr Gly			
690	695	700	
Glu Arg Pro Tyr Gly Cys Ser Asp Cys Gly Lys Ala Phe Ala His Leu			
705	710	715	720

Ser Ile Leu Val Lys His Arg Arg Ile His Arg

725

730

<210> 4968

<211> 1186

<212> PRT

<213> Homo sapiens

<400> 4968

Met Tyr Gln Ala Leu Glu Gln Gly Gly Met Thr Phe Gly Trp Val Cys

1 5 10 15

Trp Met Ile Leu Phe Asp Ser Ser Leu Tyr Phe Leu Cys Gly Trp Tyr

20 25 30

Leu Ser Asn Leu Ile Pro Gly Thr Phe Gly Leu Arg Lys Pro Trp Tyr

35 40 45

Phe Pro Phe Thr Ala Ser Tyr Trp Lys Ser Val Gly Phe Leu Val Glu

50 55 60

Lys Arg Gln Tyr Phe Leu Ser Ser Leu Phe Phe Asn Glu Asn

65 70 75 80

Phe Asp Asn Lys Gly Ser Ser Leu Gln Asn Arg Glu Gly Glu Leu Glu

85 90 95

Gly Ser Ala Pro Gly Val Thr Leu Val Ser Val Thr Lys Glu Tyr Glu

100 105 110

Gly His Lys Ala Val Val Gln Asp Leu Ser Leu Thr Phe Tyr Arg Asp

115 120 125

Gln Ile Thr Ala Leu Leu Gly Thr Asn Ala Gly Lys Thr Thr Ile

130 135 140

Ile Ser Met Leu Thr Gly Leu His Pro Pro Thr Ser Gly Thr Ile Ile

145 150 155 160

Ile Asn Gly Lys Asn Leu Gln Thr Asp Leu Ser Arg Val Arg Met Glu

165 170 175

Leu Gly Val Cys Pro Gln Gln Asp Ile Leu Leu Asp Asn Leu Thr Val

180 185 190

Arg Glu His Leu Leu Leu Phe Ala Ser Ile Lys Ala Pro Gln Trp Thr

195	200	205
Lys Lys Glu Leu His Gln Gln Val Asn Gln Thr Leu Gln Asp Val Asp		
210	215	220
Leu Thr Gln His Gln His Lys Gln Thr Arg Ala Leu Ser Gly Gly Leu		
225	230	235
Lys Arg Lys Leu Ser Leu Gly Ile Ala Phe Met Gly Met Ser Arg Thr		
245	250	255
Val Val Leu Asp Glu Pro Thr Ser Gly Val Asp Pro Cys Ser Arg His		
260	265	270
Ser Leu Trp Asp Ile Leu Leu Lys Tyr Arg Glu Gly Arg Thr Ile Ile		
275	280	285
Phe Thr Thr His His Leu Asp Glu Ala Glu Ala Leu Ser Asp Arg Val		
290	295	300
Ala Val Leu Gln His Gly Arg Leu Arg Cys Cys Gly Pro Pro Phe Cys		
305	310	315
Leu Lys Glu Ala Tyr Gly Gln Gly Leu Arg Leu Thr Leu Thr Arg Gln		
325	330	335
Pro Ser Val Leu Glu Ala His Asp Leu Lys Asp Met Ala Cys Val Thr		
340	345	350
Ser Leu Ile Lys Ile Tyr Ile Pro Gln Ala Phe Leu Lys Asp Ser Ser		
355	360	365
Gly Ser Glu Leu Thr Tyr Thr Ile Pro Lys Asp Thr Asp Lys Ala Cys		
370	375	380
Leu Lys Gly Leu Phe Gln Ala Leu Asp Gly Asn Leu His Gln Leu His		
385	390	395
Leu Thr Gly Tyr Gly Ile Ser Asp Thr Thr Leu Glu Glu Val Phe Leu		
405	410	415
Met Leu Leu Gln Asp Ser Asn Lys Lys Ser His Ile Ala Leu Gly Thr		
420	425	430
Glu Ser Glu Leu Gln Asn His Arg Pro Thr Gly His Leu Ser Gly Tyr		
435	440	445
Cys Gly Ser Leu Ala Arg Pro Ala Thr Val Gln Gly Val Gln Leu Leu		
450	455	460
Arg Ala Gln Val Ala Ala Ile Leu Ala Arg Arg Leu Arg Arg Thr Leu		
465	470	475
Arg Ala Gly Lys Ser Thr Leu Ala Asp Leu Leu Pro Val Leu Phe		

485	490	495
Val Ala Leu Ala Met Gly Leu Phe Met Val Arg Pro Leu Ala Thr Glu		
500	505	510
Tyr Pro Pro Leu Arg Leu Thr Pro Gly His Tyr Gln Arg Ala Glu Thr		
515	520	525
Tyr Phe Phe Ser Ser Gly Gly Asp Asn Leu Asp Leu Thr Arg Val Leu		
530	535	540
Leu Arg Lys Phe Arg Asp Gln Asp Leu Pro Cys Ala Asp Leu Asn Pro		
545	550	555
Arg Gln Lys Asn Ser Ser Cys Trp Arg Thr Asp Pro Phe Ser His Pro		
565	570	575
Glu Phe Gln Asp Ser Cys Gly Cys Leu Lys Arg Pro Asn Arg Ser Ala		
580	585	590
Ser Ala Pro Tyr Leu Thr Asn His Leu Gly His Thr Leu Leu Asn Leu		
595	600	605
Ser Gly Phe Asn Met Glu Glu Tyr Leu Leu Ala Pro Ser Glu Lys Pro		
610	615	620
Arg Leu Gly Gly Trp Ser Phe Gly Leu Lys Ile Pro Ser Glu Ala Gly		
625	630	635
Gly Ala Asn Gly Asn Ile Ser Lys Pro Pro Thr Leu Ala Lys Val Trp		
645	650	655
Tyr Asn Gln Lys Gly Phe His Ser Leu Pro Ser Tyr Leu Asn His Leu		
660	665	670
Asn Asn Leu Ile Leu Trp Gln His Leu Pro Pro Thr Val Asp Trp Arg		
675	680	685
Gln Tyr Gly Ile Thr Leu Tyr Ser His Pro Tyr Gly Gly Ala Leu Leu		
690	695	700
Asn Glu Asp Lys Ile Leu Glu Ser Ile Arg Gln Cys Gly Val Ala Leu		
705	710	715
Cys Ile Val Leu Gly Phe Ser Ile Leu Ser Ala Ser Ile Gly Ser Ser		
725	730	735
Val Val Arg Asp Arg Val Ile Gly Ala Lys Arg Leu Gln His Ile Ser		
740	745	750
Gly Leu Gly Tyr Arg Met Tyr Trp Phe Thr Asn Phe Leu Tyr Asp Met		
755	760	765
Leu Phe Tyr Leu Val Ser Val Cys Leu Cys Val Ala Val Ile Val Ala		

770	775	780
Phe Gln Leu Thr Ala Phe Thr Phe Arg Lys Asn Leu Ala Ala Thr Ala		
785	790	795
Leu Leu Leu Ser Leu Phe Gly Tyr Ala Thr Leu Pro Trp Met Tyr Leu		
805	810	815
Met Ser Arg Ile Phe Ser Ser Ser Asp Val Ala Phe Ile Ser Tyr Val		
820	825	830
Ser Leu Asn Phe Ile Phe Gly Leu Cys Thr Met Leu Ile Thr Ile Met		
835	840	845
Pro Arg Leu Leu Ala Ile Ile Ser Lys Ala Lys Asn Leu Gln Asn Ile		
850	855	860
Tyr Asp Val Leu Lys Trp Val Phe Thr Ile Phe Pro Gln Phe Cys Leu		
865	870	875
Gly Gln Gly Leu Val Glu Leu Cys Tyr Asn Gln Thr Lys Tyr Asp Leu		
885	890	895
Thr His Asn Phe Gly Ile Asp Ser Tyr Val Ser Pro Phe Glu Met Asn		
900	905	910
Phe Leu Gly Trp Ile Phe Val Gln Leu Ala Ser Gln Gly Thr Val Leu		
915	920	925
Leu Leu Leu Arg Val Leu Leu His Trp Asp Leu Leu Arg Trp Pro Arg		
930	935	940
Gly His Ser Thr Leu Gln Gly Thr Val Lys Ser Ser Lys Asp Thr Asp		
945	950	955
Val Glu Lys Glu Glu Lys Arg Val Phe Glu Gly Arg Thr Asn Gly Asp		
965	970	975
Ile Leu Val Leu Tyr Asn Leu Ser Lys His Tyr Arg Arg Phe Phe Gln		
980	985	990
Asn Ile Ile Ala Val Gln Asp Ile Ser Leu Gly Ile Pro Lys Gly Glu		
995	1000	1005
Cys Phe Gly Leu Leu Gly Val Asn Gly Ala Gly Lys Ser Thr Thr Phe		
1010	1015	1020
Lys Met Leu Asn Gly Glu Val Ser Leu Thr Ser Gly His Ala Ile Ile		
1025	1030	1035
Arg Thr Pro Met Gly Asp Ala Val Asp Leu Ser Ser Ala Gly Thr Ala		
1045	1050	1055
Gly Val Leu Ile Gly Tyr Cys Pro Gln Gln Asp Ala Leu Asp Glu Leu		

1060	1065	1070
Leu Thr Gly Trp Glu His Leu Tyr Tyr Tyr Cys Ser Leu Arg Gly Ile		
1075	1080	1085
Pro Arg Gln Cys Ile Pro Glu Val Ala Gly Asp Leu Ile Arg Arg Leu		
1090	1095	1100
His Leu Glu Ala His Ala Asp Lys Pro Val Ala Thr Tyr Ser Gly Gly		
1105	1110	1115
Thr Lys Arg Lys Leu Ser Thr Ala Leu Ala Leu Val Gly Lys Pro Asp		
1125	1130	1135
Ile Leu Leu Leu Asp Glu Pro Ser Ser Gly Met Asp Pro Cys Ser Lys		
1140	1145	1150
Arg Tyr Leu Trp Gln Thr Ile Met Lys Glu Val Arg Glu Gly Cys Ala		
1155	1160	1165
Ala Val Leu Thr Ser His Arg Phe Trp Tyr Gln Asp Asp Ala Gly Leu		
1170	1175	1180
Ile Lys		
1185		

<210> 4969

<211> 140

<212> PRT

<213> Homo sapiens

<400> 4969

Met Tyr Ile Phe Phe Phe Leu Lys Gln Met Ser Phe Asp Pro Asn			
1	5	10	15
Leu Leu His Asn Asn Gly His Asn Gly Tyr Pro Asn Gly Thr Ser Ala			
20	25	30	
Ala Leu Arg Glu Thr Gly Val Ile Glu Lys Leu Leu Thr Ser Tyr Gly			
35	40	45	
Phe Ile Gln Cys Ser Glu Arg Gln Ala Arg Leu Phe Phe His Cys Ser			
50	55	60	
Gln Tyr Asn Gly Asn Leu Gln Asp Leu Lys Val Gly Gly Asn Leu Ser			
65	70	75	80
Val Leu Leu Cys Lys Asn Val Ile Thr Lys Phe Val Leu His Ile Asn			

85	90	95
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Leu Phe Met Ser Val Phe Gln Lys Val Leu Cys Lys Leu Lys His Phe		
100	105	110
Gly Leu Leu Val Val Leu Phe Ser Glu Glu Tyr Leu Tyr Lys Pro Ala		
115	120	125
Glu Ser Leu Lys Asp Tyr Ile Cys Ile Tyr Leu Gln		
130	135	140

<210> 4970

<211> 177

<212> PRT

<213> Homo sapiens

<400> 4970

Met Ser Ser Glu Thr Pro Thr Ser Arg Gln Leu Ser Glu Tyr Leu Lys		
1	5	10
His Ala Lys Gly Arg Thr Arg Thr Ala Ile Arg Asn Gly Gln Val Trp		
20	25	30
Glu Glu Ser Leu Lys Arg Leu Arg Gln Lys Ala Ser Leu Thr Asn Val		
35	40	45
Thr Asp Pro Ser Leu Asp Leu Thr Ser Leu Ser Leu Glu Val Gly Cys		
50	55	60
Gly Ala Pro Ala Pro Val Val Arg Cys Asp Pro Cys Ser Pro Tyr Arg		
65	70	75
Thr Ile Thr Gly Asp Cys Asn Asn Arg Trp Arg Gly Leu Gly Cys Gly		
85	90	95
Gly Arg Pro Phe Gln Pro Leu Arg Pro Ala Leu Pro Arg Pro Leu Ser		
100	105	110
Leu Gly His Ser Arg Gln Ile Cys His Cys Leu Ala His Leu Gly Trp		
115	120	125
Arg Ser His Leu Pro His Leu Leu Lys Ile Ala Arg Leu Gln Pro Ser		
130	135	140
Pro Ser Ser Pro Leu Cys Val Ser Gly Ser Gly Thr Phe Pro Arg Gly		
145	150	155
Gly Gly Ala Pro Arg Leu Gln Gly Val Gly Ala Val Gln Arg Pro Gln		

165

170

175

Ile

&lt;210&gt; 4971

&lt;211&gt; 930

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4971

Met Ala Gly Ala Ala Ala Ala Val Ala Ala Gly Ala Ala Ala Gly Ala  
 1 5 10 15  
 Ala Ala Ala Ala Val Ser Val Ala Ala Pro Gly Arg Ala Ser Ala Pro  
 20 25 30  
 Pro Pro Pro Pro Pro Val Tyr Cys Val Cys Arg Gln Pro Tyr Asp Val  
 35 40 45  
 Asn Arg Phe Met Ile Glu Cys Asp Ile Cys Lys Asp Trp Phe His Gly  
 50 55 60  
 Ser Cys Val Gly Val Glu Glu His His Ala Val Asp Ile Asp Leu Tyr  
 65 70 75 80  
 His Cys Pro Asn Cys Ala Val Leu His Gly Ser Ser Leu Met Lys Lys  
 85 90 95  
 Arg Arg Asn Trp His Arg His Asp Tyr Thr Glu Ile Asp Asp Gly Ser  
 100 105 110  
 Lys Pro Val Gln Ala Gly Thr Arg Thr Phe Ile Lys Glu Leu Arg Ser  
 115 120 125  
 Arg Val Phe Pro Ser Ala Asp Glu Ile Ile Ile Lys Met His Gly Ser  
 130 135 140  
 Gln Leu Thr Gln Arg Tyr Leu Glu Lys His Gly Phe Asp Val Pro Ile  
 145 150 155 160  
 Met Val Pro Lys Leu Asp Asp Leu Gly Leu Arg Leu Pro Ser Pro Thr  
 165 170 175  
 Phe Ser Val Met Asp Val Glu Arg Tyr Val Gly Gly Asp Lys Val Ile  
 180 185 190  
 Asp Val Ile Asp Val Ala Arg Gln Ala Asp Ser Lys Met Thr Leu His

195	200	205
Asn Tyr Val Lys Tyr Phe Met Asn Pro Asn Arg Pro Lys Val Leu Asn		
210	215	220
Val Ile Ser Leu Glu Phe Ser Asp Thr Lys Met Ser Glu Leu Val Glu		
225	230	235
Val Pro Asp Ile Ala Lys Lys Leu Ser Trp Val Glu Asn Tyr Trp Pro		
245	250	255
Asp Asp Ser Val Phe Pro Lys Pro Phe Val Gln Lys Tyr Cys Leu Met		
260	265	270
Gly Val Gln Asp Ser Tyr Thr Asp Phe His Ile Asp Phe Gly Gly Thr		
275	280	285
Ser Val Trp Tyr His Val Leu Trp Gly Glu Lys Ile Phe Tyr Leu Ile		
290	295	300
Lys Pro Thr Asp Glu Asn Leu Ala Arg Tyr Glu Ser Trp Ser Ser Ser		
305	310	315
Val Thr Gln Ser Glu Val Phe Phe Gly Asp Lys Val Asp Lys Cys Tyr		
325	330	335
Lys Cys Val Val Lys Gln Gly His Thr Leu Phe Val Pro Thr Gly Trp		
340	345	350
Ile His Ala Val Leu Thr Ser Gln Asp Cys Met Ala Phe Gly Gly Asn		
355	360	365
Phe Leu His Asn Leu Asn Ile Gly Met Gln Leu Arg Cys Tyr Glu Met		
370	375	380
Glu Lys Arg Leu Lys Thr Pro Asp Leu Phe Lys Phe Pro Phe Phe Glu		
385	390	395
Ala Ile Cys Trp Phe Val Ala Lys Asn Leu Leu Glu Thr Leu Lys Glu		
405	410	415
Leu Arg Glu Asp Gly Phe Gln Pro Gln Thr Tyr Leu Val Gln Gly Val		
420	425	430
Lys Ala Leu His Thr Ala Leu Lys Leu Trp Met Lys Lys Glu Leu Val		
435	440	445
Ser Glu His Ala Phe Glu Ile Pro Asp Asn Val Arg Pro Gly His Leu		
450	455	460
Ile Lys Glu Leu Ser Lys Val Ile Arg Ala Ile Glu Glu Glu Asn Gly		
465	470	475
Lys Pro Val Lys Ser Gln Gly Ile Pro Ile Val Cys Pro Val Ser Arg		

485	490	495
Ser Ser Asn Glu Ala Thr Ser Pro Tyr His Ser Arg Arg Lys Met Arg		
500	505	510
Lys Leu Arg Asp His Asn Val Arg Thr Pro Ser Asn Leu Asp Ile Leu		
515	520	525
Glu Leu His Thr Arg Glu Val Leu Lys Arg Leu Glu Met Cys Pro Trp		
530	535	540
Glu Glu Asp Ile Leu Ser Ser Lys Leu Asn Gly Lys Phe Asn Lys His		
545	550	555
Leu Gln Pro Ser Ser Thr Val Pro Glu Trp Arg Ala Lys Asp Asn Asp		
565	570	575
Leu Arg Leu Leu Leu Thr Asn Gly Arg Ile Ile Lys Asp Glu Arg Gln		
580	585	590
Pro Phe Ala Asp Gln Ser Leu Tyr Thr Ala Asp Ser Glu Asn Glu Glu		
595	600	605
Asp Lys Arg Arg Thr Lys Lys Ala Lys Met Lys Ile Glu Glu Ser Ser		
610	615	620
Gly Val Glu Gly Val Glu His Glu Glu Ser Gln Lys Pro Leu Asn Gly		
625	630	635
Phe Phe Thr Arg Val Lys Ser Glu Leu Arg Ser Arg Ser Ser Gly Tyr		
645	650	655
Ser Asp Ile Ser Glu Ser Glu Asp Ser Gly Pro Glu Cys Thr Ala Leu		
660	665	670
Lys Ser Ile Phe Thr Thr Glu Glu Ser Glu Ser Ser Gly Asp Glu Lys		
675	680	685
Lys Gln Glu Ile Thr Ser Asn Phe Lys Glu Glu Ser Asn Val Met Arg		
690	695	700
Asn Phe Leu Gln Lys Ser Gln Lys Pro Ser Arg Ser Glu Ile Pro Ile		
705	710	715
Lys Arg Glu Cys Pro Thr Ser Thr Ser Thr Glu Glu Glu Ala Ile Gln		
725	730	735
Gly Met Leu Ser Met Ala Gly Leu His Tyr Ser Thr Cys Leu Gln Arg		
740	745	750
Gln Ile Gln Ser Thr Asp Cys Ser Gly Glu Arg Asn Ser Leu Gln Asp		
755	760	765
Pro Ser Ser Cys His Gly Ser Asn His Glu Val Arg Gln Leu Tyr Arg		

770	775	780	
Tyr Asp Lys Pro Val Glu Cys Gly Tyr His Val Lys Thr Glu Asp Pro			
785	790	795	800
Asp Leu Arg Thr Ser Ser Trp Ile Lys Gln Phe Asp Thr Ser Arg Phe			
805	810	815	
His Pro Gln Asp Leu Ser Arg Ser Gln Lys Cys Ile Arg Lys Glu Gly			
820	825	830	
Ser Ser Glu Ile Ser Gln Arg Val Gln Ser Arg Asn Tyr Val Asp Ser			
835	840	845	
Ser Gly Ser Ser Leu Gln Asn Gly Lys Tyr Met Gln Asn Ser Asn Leu			
850	855	860	
Thr Ser Gly Ala Cys Gln Ile Ser Asn Gly Ser Leu Ser Pro Glu Arg			
865	870	875	880
Pro Val Gly Glu Thr Ser Phe Ser Val Pro Leu His Pro Thr Lys Arg			
885	890	895	
Pro Ala Ser Asn Pro His Leu Ser Ala Thr Arg Gln Gln Lys Val Asn			
900	905	910	
Val Gln Lys Lys Glu Trp Gln Gln Pro Asn Asn Val Leu Gly Arg Ser			
915	920	925	
Leu Ser			
930			

<210> 4972

<211> 755

<212> PRT

<213> Homo sapiens

<400> 4972

Met Arg Lys Val Lys Lys Leu Arg Leu Asp Lys Glu Asn Thr Gly Ser			
1	5	10	15
Trp Arg Ser Phe Ser Leu Asn Ser Glu Gly Ala Glu Arg Met Ala Thr			
20	25	30	
Ser Tyr Asp Phe His Ser Glu Ser Gly Leu Phe Leu Phe Gln Ala Ser			
35	40	45	
Asn Ser Leu Phe His Cys Arg Asp Gly Gly Lys Asn Gly Phe Met Val			

50	55	60	
Ser Pro Met Lys Pro Leu Glu Ile Lys Thr Gln Cys Ser Gly Pro Arg			
65	70	75	80
Met Asp Pro Lys Ile Cys Pro Ala Asp Pro Ala Phe Phe Ser Phe Ile			
85	90	95	
Asn Asn Ser Asp Leu Trp Val Ala Asn Ile Glu Thr Gly Glu Glu Arg			
100	105	110	
Arg Leu Thr Phe Cys His Gln Gly Leu Ser Asn Val Leu Asp Asp Pro			
115	120	125	
Lys Ser Ala Gly Val Ala Thr Phe Val Ile Gln Glu Glu Phe Asp Arg			
130	135	140	
Phe Thr Gly Tyr Trp Trp Cys Pro Thr Ala Ser Trp Glu Gly Ser Glu			
145	150	155	160
Gly Leu Lys Thr Leu Arg Ile Leu Tyr Glu Glu Val Asp Glu Ser Glu			
165	170	175	
Val Glu Val Ile His Val Pro Ser Pro Ala Leu Glu Glu Arg Lys Thr			
180	185	190	
Asp Ser Tyr Arg Tyr Pro Arg Thr Gly Ser Lys Asn Pro Lys Ile Ala			
195	200	205	
Leu Lys Leu Ala Glu Phe Gln Thr Asp Ser Gln Gly Lys Ile Val Ser			
210	215	220	
Thr Gln Glu Lys Glu Leu Val Gln Pro Phe Ser Ser Leu Phe Pro Lys			
225	230	235	240
Val Glu Tyr Ile Ala Arg Ala Gly Trp Thr Arg Asp Gly Lys Tyr Ala			
245	250	255	
Trp Ala Met Phe Leu Asp Arg Pro Gln Gln Trp Leu Gln Leu Val Leu			
260	265	270	
Leu Pro Pro Ala Leu Phe Ile Pro Ser Thr Glu Asn Glu Glu Gln Arg			
275	280	285	
Leu Ala Ser Ala Arg Ala Val Pro Arg Asn Val Gln Pro Tyr Val Val			
290	295	300	
Tyr Glu Glu Val Thr Asn Val Trp Ile Asn Val His Asp Ile Phe Tyr			
305	310	315	320
Pro Phe Pro Gln Ser Glu Gly Glu Asp Glu Leu Cys Phe Leu Arg Ala			
325	330	335	

Asn Glu Cys Lys Thr Gly Phe Cys His Leu Tyr Lys Val Thr Ala Val  
 340 345 350  
 Leu Lys Ser Gln Gly Tyr Asp Trp Ser Glu Pro Phe Ser Pro Gly Glu  
 355 360 365  
 Asp Glu Phe Lys Cys Pro Ile Lys Glu Glu Ile Ala Leu Thr Ser Gly  
 370 375 380  
 Glu Trp Glu Val Leu Ala Arg His Gly Ser Lys Ile Trp Val Asn Glu  
 385 390 395 400  
 Glu Thr Lys Leu Val Tyr Phe Gln Gly Thr Lys Asp Thr Pro Leu Glu  
 405 410 415  
 His His Leu Tyr Val Val Ser Tyr Glu Ala Ala Gly Glu Ile Val Arg  
 420 425 430  
 Leu Thr Thr Pro Gly Phe Ser His Ser Cys Ser Met Ser Gln Asn Phe  
 435 440 445  
 Asp Met Phe Val Ser His Tyr Ser Ser Val Ser Thr Pro Pro Cys Val  
 450 455 460  
 His Val Tyr Lys Leu Ser Gly Pro Asp Asp Asp Pro Leu His Lys Gln  
 465 470 475 480  
 Pro Arg Phe Trp Ala Ser Met Met Glu Ala Ala Ser Cys Pro Pro Asp  
 485 490 495  
 Tyr Val Pro Pro Glu Ile Phe His Phe His Thr Arg Ser Asp Val Arg  
 500 505 510  
 Leu Tyr Gly Met Ile Tyr Lys Pro His Ala Leu Gln Pro Gly Lys Lys  
 515 520 525  
 His Pro Thr Val Leu Phe Val Tyr Gly Gly Pro Gln Val Gln Leu Val  
 530 535 540  
 Asn Asn Ser Phe Lys Gly Ile Lys Tyr Leu Arg Leu Asn Thr Leu Ala  
 545 550 555 560  
 Ser Leu Gly Tyr Ala Val Val Val Ile Asp Gly Arg Gly Ser Cys Gln  
 565 570 575  
 Arg Gly Leu Arg Phe Glu Gly Ala Leu Lys Asn Gln Met Gly Gln Val  
 580 585 590  
 Glu Ile Glu Asp Gln Val Glu Gly Pro Gln Phe Val Ala Glu Lys Tyr  
 595 600 605  
 Gly Phe Ile Asp Leu Ser Arg Val Ala Ile His Gly Trp Ser Tyr Gly  
 610 615 620

Gly Phe Leu Ser Leu Met Gly Leu Ile His Lys Pro Gln Val Phe Lys  
 625 630 635 640  
 Val Ala Ile Ala Gly Ala Pro Val Thr Val Trp Met Ala Tyr Asp Thr  
 645 650 655  
 Gly Tyr Thr Glu Arg Tyr Met Asp Val Pro Glu Asn Asn Gln His Gly  
 660 665 670  
 Tyr Glu Ala Gly Ser Val Ala Leu His Val Glu Lys Leu Pro Asn Glu  
 675 680 685  
 Pro Asn Arg Leu Leu Ile Leu His Gly Phe Leu Asp Glu Asn Val His  
 690 695 700  
 Phe Phe His Thr Asn Phe Leu Val Ser Gln Leu Ile Arg Ala Gly Lys  
 705 710 715 720  
 Pro Tyr Gln Leu Gln Ile Tyr Pro Asn Glu Arg His Ser Ile Arg Cys  
 725 730 735  
 Pro Glu Ser Gly Glu His Tyr Glu Val Thr Leu Leu His Phe Leu Gln  
 740 745 750  
 Glu Tyr Leu  
 755

<210> 4973

<211> 268

<212> PRT

<213> Homo sapiens

<400> 4973

Met Ala Ala Ala Ile Thr Asp Met Ala Asp Leu Glu Glu Leu Ser Arg  
 1 5 10 15  
 Leu Ser Pro Leu Pro Pro Gly Ser Pro Gly Ser Ala Ala Arg Gly Arg  
 20 25 30  
 Ala Glu Pro Pro Glu  
 35 40 45  
 Ala Glu Ala Glu Ala Val Ala Ala Leu Leu Leu Asn Gly Gly Ser Gly  
 50 55 60  
 Gly Gly Gly Gly Gly Gly Gly Gly Val Gly Gly Gly Glu Ala Glu  
 65 70 75 80

Thr Met Ser Glu Pro Ser Pro Glu Ser Ala Ser Gln Ala Gly Glu Asp  
                   85                         90                         95  
 Glu Asp Glu Glu Glu Asp Asp Glu Glu Glu Glu Asp Glu Ser Ser Ser  
                   100                     105                     110  
 Ser Gly Gly Gly Glu Glu Glu Ser Ser Ala Glu Ser Leu Val Gly Ser  
                   115                     120                     125  
 Ser Gly Gly Ser Ser Ser Asp Glu Thr Arg Ser Leu Ser Pro Gly Ala  
                   130                     135                     140  
 Ala Ser Ser Ser Ser Gly Asp Gly Asp Gly Lys Glu Gly Leu Glu Glu  
                   145                     150                     155                 160  
 Pro Lys Gly Pro Arg Gly Ser Gln Gly Gly Gly Gly Ser Ser  
                   165                     170                     175  
 Ser Ser Ser Val Val Ser Ser Gly Gly Asp Glu Gly Tyr Gly Thr Gly  
                   180                     185                     190  
 Gly Gly Gly Ser Ser Ala Thr Ser Gly Gly Arg Arg Gly Ser Leu Glu  
                   195                     200                     205  
 Met Ser Ser Asp Gly Glu Pro Leu Ser Arg Met Asp Ser Glu Asp Ser  
                   210                     215                     220  
 Ile Ser Ser Thr Ile Met Asp Val Asp Ser Thr Ile Ser Ser Gly Arg  
                   225                     230                     235                 240  
 Ser Thr Pro Ala Met Met Asn Gly Gln Gly Ser Thr Thr Ser Ser Ser  
                   245                     250                     255  
 Lys Asn Ile Ala Tyr Asn Cys Cys Trp Asp Gln Cys  
                   260                     265

<210> 4974

<211> 160

<212> PRT

<213> Homo sapiens

<400> 4974

Met Leu Gly Glu Arg Pro Leu Cys Leu Thr Pro Gly Ala Lys Leu Gly  
                   1                     5                     10                 15  
 Leu His His Trp Ile Ile Arg Cys Phe Gln Arg Arg Pro Ser Pro His  
                   20                     25                     30

Pro	Asp	Gln	Gly	Asn	Trp	Asp	Asp	Val	Gly	Pro	Leu	Thr	Leu	Ser	Asp	
35								40						45		
Met	Gln	Pro	Gly	Trp	Arg	Leu	Gly	Gln	Pro	Pro	Cys	Arg	Ser	Glu	Ser	
50								55				60				
Phe	Ser	Pro	Cys	His	Leu	Lys	Ser	Lys	Ser	Leu	Leu	Thr	Gln	Ala	Leu	
65									70			75			80	
Pro	Gly	Met	Cys	Ser	Pro	Ala	Thr	Glu	Pro	Glu	Ala	Ala	Leu	Leu	Leu	
								85			90			95		
Ser	Pro	Val	Gly	Thr	Ala	Phe	Gln	Thr	Gln	Asn	Thr	Glu	Phe	Thr	Ala	
								100			105			110		
Ser	Phe	Gly	Ile	Phe	Pro	Asn	Arg	Leu	Thr	Val	Pro	Ile	Ala	Ser	Asp	
								115			120			125		
Pro	Phe	Gln	Tyr	Ser	Cys	Thr	Arg	Asn	Val	Met	Val	Lys	Asn	Lys	Lys	
									130			135			140	
Pro	Pro	Val	Met	Glu	Gly	Arg	Asn	Met	Asn	Gln	Leu	Lys	Ala	Phe	His	
145								150				155			160	

〈210〉 4975

〈211〉 411

<212> PRT

〈213〉 *Homo sapiens*

<400> 4975

Met	Thr	Glu	Met	Ser	Glu	Lys	Glu	Asn	Glu	Pro	Asp	Asp	Ala	Ala	Thr
1			5						10				15		
His	Ser	Pro	Pro	Gly	Thr	Val	Ser	Ala	Leu	Gln	Glu	Thr	Lys	Leu	Gln
					20					25			30		
Arg	Phe	Lys	Arg	Ser	Leu	Ser	Leu	Lys	Thr	Ile	Leu	Arg	Ser	Lys	Ser
					35				40			45			
Leu	Glu	Asn	Phe	Phe	Leu	Arg	Ser	Gly	Ser	Glu	Leu	Lys	Cys	Pro	Thr
					50			55			60				
Glu	Val	Leu	Leu	Thr	Pro	Pro	Thr	Pro	Leu	Pro	Pro	Pro	Ser	Pro	Pro
					65			70			75			80	
Pro	Thr	Ala	Ser	Asp	Arg	Gly	Leu	Ala	Thr	Pro	Ser	Pro	Ser	Pro	Cys
					85				90				95		

Pro Val Pro Arg Pro Leu Ala Ala Leu Lys Pro Val Arg Leu His Ser  
 100 105 110  
 Phe Gln Glu His Val Phe Lys Arg Ala Ser Pro Cys Glu Leu Cys His  
 115 120 125  
 Gln Leu Ile Val Gly Asn Ser Lys Gln Gly Leu Arg Cys Lys Met Cys  
 130 135 140  
 Lys Val Ser Val His Leu Trp Cys Ser Glu Glu Ile Ser His Gln Gln  
 145 150 155 160  
 Cys Pro Gly Lys Thr Ser Thr Ser Phe Arg Arg Asn Phe Ser Ser Pro  
 165 170 175  
 Leu Leu Val His Glu Pro Pro Val Cys Ala Thr Ser Lys Glu Ser  
 180 185 190  
 Pro Pro Thr Gly Asp Ser Gly Lys Val Asp Pro Val Tyr Glu Thr Leu  
 195 200 205  
 Arg Tyr Gly Thr Ser Leu Ala Leu Met Asn Arg Ser Ser Phe Ser Ser  
 210 215 220  
 Thr Ser Glu Ser Pro Thr Arg Ser Leu Ser Glu Arg Asp Glu Leu Thr  
 225 230 235 240  
 Glu Asp Gly Glu Gly Ser Ile Arg Ser Ser Glu Glu Gly Pro Gly Asp  
 245 250 255  
 Ser Ala Ser Pro Val Phe Thr Ala Pro Ala Glu Ser Glu Gly Pro Gly  
 260 265 270  
 Pro Glu Glu Lys Ser Pro Gly Gln Gln Leu Pro Lys Ala Thr Leu Arg  
 275 280 285  
 Lys Asp Val Gly Pro Met Tyr Ser Tyr Val Ala Leu Tyr Lys Phe Leu  
 290 295 300  
 Pro Gln Glu Asn Asn Asp Leu Ala Leu Gln Pro Gly Asp Arg Ile Met  
 305 310 315 320  
 Leu Val Asp Asp Ser Asn Glu Asp Trp Trp Lys Gly Lys Ile Gly Asp  
 325 330 335  
 Arg Val Gly Phe Phe Pro Ala Asn Phe Val Gln Arg Val Arg Pro Gly  
 340 345 350  
 Glu Asn Val Trp Arg Cys Cys Gln Pro Phe Ser Gly Asn Lys Glu Gln  
 355 360 365  
 Gly Tyr Met Ser Leu Lys Glu Asn Gln Ile Cys Val Gly Val Gly Arg  
 370 375 380

Ser Lys Asp Ala Asp Gly Phe Ile Arg Val Ser Ser Gly Lys Lys Arg  
 385 390 395 400  
 Gly Leu Val Pro Val Asp Ala Leu Thr Glu Ile  
 405 410

<210> 4976

<211> 129

<212> PRT

<213> Homo sapiens

<400> 4976

Met Leu Ser Ala Gly Gly Cys Ile Leu Leu Pro Val His Ile Val Cys  
 1 5 10 15  
 Ala Trp Asp Gly His Glu Ser Gly Gly Arg Ala Gly Val Leu Ala Leu  
 20 25 30  
 Gly Tyr Phe Gly Glu Thr Ile Arg Phe Lys Glu Gly Asn Thr Phe Ser  
 35 40 45  
 Gly Pro Val Pro Gln Asn Thr Thr Ile Thr Arg Gly Arg His Leu Ala  
 50 55 60  
 Glu Leu Ser Pro Thr Gly Thr Ser Gly Pro Trp Phe Leu His Pro Gln  
 65 70 75 80  
 Ser Ala Ser Phe His Ser Arg Gln Asn Gln Gly Ile Phe Gln Gly Gln  
 85 90 95  
 Val Ser His Pro Leu Gly Ala Gly Ile Leu Ser His Ser Lys Thr Asn  
 100 105 110  
 Phe Gln Val Pro Gly Leu Leu Gly Asn Pro Lys Arg Leu Ser Pro Ala  
 115 120 125  
 Glu

<210> 4977

<211> 156

<212> PRT

<213> Homo sapiens

&lt;400&gt; 4977

Met	Gln	Thr	Glu	Asp	Ile	Arg	Leu	Glu	Pro	Asp	Leu	Tyr	Glu	Ala	Cys
1					5				10					15	
Lys	Ser	Asp	Ile	Lys	Asn	Phe	Cys	Ser	Ala	Val	Gln	Tyr	Gly	Asn	Ala
			20					25					30		
Gln	Ile	Ile	Glu	Cys	Leu	Lys	Glu	Asn	Lys	Lys	Gln	Leu	Ser	Thr	Arg
					35			40					45		
Cys	His	Gln	Lys	Val	Phe	Lys	Leu	Gln	Glu	Thr	Glu	Met	Met	Asp	Pro
					50			55				60			
Glu	Leu	Asp	Tyr	Thr	Leu	Met	Arg	Val	Cys	Lys	Gln	Met	Ile	Lys	Arg
					65			70			75			80	
Phe	Cys	Pro	Glu	Ala	Asp	Ser	Lys	Thr	Met	Leu	Gln	Cys	Leu	Lys	Gln
						85			90				95		
Asn	Lys	Asn	Ser	Glu	Leu	Met	Asp	Pro	Lys	Cys	Lys	Gln	Met	Ile	Thr
					100			105					110		
Lys	Arg	Gln	Ile	Thr	Gln	Asn	Thr	Gly	Lys	Ile	Leu	Ala	Trp	Leu	Ser
					115			120					125		
Trp	Pro	Arg	Gly	Val	Ser	Glu	Lys	Glu	Phe	Ser	Gly	Cys	Arg	Val	Thr
					130			135					140		
Cys	Ser	Asn	Ser	Gln	Gly	Phe	Val	Ala	Trp	Glu	Phe				
					145			150					155		

&lt;210&gt; 4978

&lt;211&gt; 183

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4978

Met	Glu	Leu	Ala	Ala	Leu	Gly	Leu	Ser	Pro	Cys	Pro	Arg	Leu	Leu	His
1					5				10				15		
Ala	Glu	Leu	Leu	Pro	Gly	Leu	Leu	Thr	Val	Phe	Ser	Leu	Arg	Phe	Leu
						20			25				30		
Gln	Asp	Tyr	Gly	Gly	Tyr	Leu	Ser	Thr	Tyr	Ile	Leu	Pro	Ala	Lys	Gly

35	40	45
Glu Asn Gln Gly Gln Thr Phe Thr Cys Gly Ser Ala Leu Ser Pro Ile		
50	55	60
Thr Asp Phe Lys Leu Tyr Ala Ser Ala Phe Ser Glu Arg Tyr Leu Gly		
65	70	75
Leu His Gly Thr Arg Asp Asn Ala Val Pro Ala Ala Ala Pro Pro Pro		
85	90	95
Gly Ala Arg Glu Thr Gly Thr Pro Arg Pro Leu Pro Gln Gly Thr Glu		
100	105	110
Gln Arg Met Val Ala Ala Gly Pro Thr Arg Ala His Arg Thr Pro Ala		
115	120	125
Pro Arg Phe Gln Pro Pro Ser Gly Ser Met Arg Pro Ala His Thr Ser		
130	135	140
Leu Cys Val Pro Val Arg Asp Ile Thr Pro Cys Leu Thr Ser Gln Cys		
145	150	155
His Gly Arg Ser Ser Tyr Ser Thr Ile Val Leu Ala Val Arg Val His		
165	170	175
Ile Trp Ala Cys Tyr Phe Leu		
180		

<210> 4979

<211> 579

<212> PRT

<213> Homo sapiens

<400> 4979

Met Lys Asp Lys Ser Asn Gly Leu Glu Ser Gln Val Asn Gln Cys Asp			
1	5	10	15
Lys Met Leu Gly Gly Asp Ala Leu Val Thr Asp Leu Leu Val Asp Phe			
20	25	30	
Cys Gly Ser Arg Ser Gly Val Glu Ile Pro Arg Thr Pro Gln Leu Tyr			
35	40	45	
Val Ala His Glu Ile Gly Thr Ile Lys Thr Val Thr Pro Pro Glu Asp			
50	55	60	
Arg Asp Ser Glu Ser Gly Val Val Gly Gly Gln Gln Gly Thr Leu Gln Glu			

65	70	75	80
Pro	Gly	Phe	Gly
Glu	Ala	Ser	Glu
Ala	Ile	Ser	Val
Ser	Arg	Asn	Arg
85	90	95	
Gln	Pro	Ile	Pro
Leu	Leu	Met	Asn
Lys	Glu	Asn	Ser
Thr	Thr	Lys	Thr
100	105	110	
Lys	Val	Glu	Leu
Thr	Leu	Ala	Ser
Pro	Tyr	Met	Lys
Gln	Glu	Lys	Glu
115	120	125	
Glu	Glu	Lys	Glu
Gly	Phe	Ser	Glu
Ser	Asp	Phe	Ser
Asp	Gly	Asn	Thr
130	135	140	
Ser	Ser	Asn	Ala
Glu	Ser	Trp	Arg
Asn	Pro	Ser	Ser
Ser	Glu	Glu	Glu
145	150	155	160
Pro	Ser	Pro	Val
Leu	Lys	Thr	Leu
Glu	Arg	Ser	Ala
Ala	Ala	Arg	Lys
165	170	175	
Pro	Ser	Lys	Ser
Leu	Glu	Asp	Ile
Ser	Ser	Asp	Ser
Ser	Asn	Gln	Ala
180	185	190	
Lys	Val	Asp	Asn
Gln	Pro	Glu	Glu
Leu	Val	Arg	Ser
Ala	Glu	Asp	Asp
195	200	205	
Glu	Lys	Pro	Asp
Gln	Lys	Pro	Val
Thr	Asn	Glu	Cys
Val	Pro	Arg	Ile
210	215	220	
Ser	Thr	Val	Pro
Thr	Gln	Pro	Asp
Asn	Pro	Phe	Ser
Pro	Asp	Ser	His
225	230	235	240
Leu	Lys	Arg	Met
Ser	Lys	Ser	Val
Val	Pro	Ala	Phe
Gln	Asp	Glu	Val
245	250	255	
Ser	Gly	Ser	Val
Met	Ser	Val	Tyr
Tyr	Ser	Gly	Asp
Gly	Asp	Phe	Gly
Asn	Leu	Glu	
260	265	270	
Val	Lys	Gly	Asn
Ile	Gln	Phe	Ala
Ile	Glu	Tyr	Val
Glu	Ser	Leu	Lys
275	280	285	
Glu	Leu	His	Val
Phe	Val	Ala	Gln
Cys	Lys	Asp	Leu
Ala	Ala	Val	Asp
290	295	300	
Val	Lys	Lys	Gln
Gln	Arg	Ser	Asp
Asp	Pro	Tyr	Val
305	310	315	320
Asp	Lys	Gly	Lys
Lys	Met	Gly	Lys
Lys	Lys	Thr	Leu
Leu	Val	Val	Lys
325	330	335	
Leu	Asn	Pro	Val
Tyr	Asn	Glu	Ile
Ile	Leu	Arg	Tyr
Lys	Ile	Glu	Lys
340	345	350	
Ile	Leu	Lys	Thr
Gln	Lys	Leu	Asn
Leu	Ser	Ile	Trp
Asn	Leu	Trp	His
Arg	Asp	Arg	Thr

355	360	365
Phe Lys Arg Asn Ser Phe Leu Gly Glu Val Glu Leu Asp Leu Glu Thr		
370	375	380
Trp Asp Trp Asp Asn Lys Gln Asn Lys Gln Leu Arg Trp Tyr Pro Leu		
385	390	395
Lys Arg Lys Thr Ala Pro Val Ala Leu Glu Ala Glu Asn Arg Gly Glu		
405	410	415
Met Lys Leu Ala Leu Gln Tyr Val Pro Glu Pro Val Pro Gly Lys Lys		
420	425	430
Leu Pro Thr Thr Gly Glu Val His Ile Trp Val Lys Glu Cys Leu Asp		
435	440	445
Leu Pro Leu Leu Arg Gly Ser His Leu Asn Ser Phe Val Lys Cys Thr		
450	455	460
Ile Leu Pro Asp Thr Ser Arg Lys Ser Arg Gln Lys Thr Arg Ala Val		
465	470	475
Gly Lys Thr Thr Asn Pro Ile Phe Asn His Thr Met Val Tyr Asp Gly		
485	490	495
Phe Arg Pro Glu Asp Leu Met Glu Ala Cys Val Glu Leu Thr Val Trp		
500	505	510
Asp His Tyr Lys Leu Thr Asn Gln Phe Leu Gly Gly Leu Arg Ile Gly		
515	520	525
Phe Gly Thr Gly Lys Ser Tyr Gly Thr Glu Val Asp Trp Met Asp Ser		
530	535	540
Thr Ser Glu Glu Val Ala Leu Trp Glu Lys Met Val Asn Ser Pro Asn		
545	550	555
Thr Trp Ile Glu Ala Thr Leu Pro Leu Arg Met Leu Leu Ile Ala Lys		
565	570	575
Ile Ser Lys		

&lt;210&gt; 4980

&lt;211&gt; 261

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4980

Met Arg Ser Leu Leu Leu Leu Ser Ala Phe Cys Leu Leu Glu Ala Ala  
 1 5 10 15  
 Leu Ala Ala Glu Val Lys Lys Pro Ala Ala Ala Ala Ala Pro Gly Thr  
 20 25 30  
 Ala Glu Lys Leu Ser Pro Lys Ala Ala Thr Leu Ala Glu Arg Ser Ala  
 35 40 45  
 Gly Leu Ala Phe Ser Leu Tyr Gln Ala Met Ala Lys Asp Gln Ala Val  
 50 55 60  
 Glu Asn Ile Leu Val Ser Pro Val Val Ala Ser Ser Leu Gly Leu  
 65 70 75 80  
 Val Ser Leu Gly Gly Lys Ala Thr Thr Ala Ser Gln Ala Lys Ala Val  
 85 90 95  
 Leu Ser Ala Glu Gln Leu Arg Asp Glu Glu Val His Ala Gly Leu Gly  
 100 105 110  
 Glu Leu Leu Arg Ser Leu Ser Asn Ser Thr Ala Arg Asn Val Thr Trp  
 115 120 125  
 Lys Leu Gly Ser Arg Leu Tyr Gly Pro Ser Ser Val Ser Phe Ala Asp  
 130 135 140  
 Asp Phe Val Arg Ser Ser Lys Gln His Tyr Asn Cys Glu His Ser Lys  
 145 150 155 160  
 Ile Asn Phe Arg Asp Lys Arg Ser Ala Leu Gln Ser Ile Asn Glu Trp  
 165 170 175  
 Ala Ala Gln Thr Thr Asp Gly Lys Leu Pro Glu Val Thr Lys Asp Val  
 180 185 190  
 Glu Arg Thr Asp Gly Ala Leu Leu Val Asn Ala Met Phe Phe Lys Arg  
 195 200 205  
 Glu Ser Gly Ala Arg Ser Gly Val Leu Leu Leu Pro Gly Pro Pro  
 210 215 220  
 Ala Arg Val Arg Thr Thr Phe Arg Ala Leu His Ser Ser Leu Pro Leu  
 225 230 235 240  
 Ile Tyr Ala Val Thr Thr Gln Gly Gly Arg Thr Val Thr Gln Leu Phe  
 245 250 255  
 Val Gln Thr Gly Asn  
 260

&lt;210&gt; 4981

&lt;211&gt; 281

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4981

Met	Ala	Glu	Ala	Ala	Pro	Ala	Arg	Asp	Pro	Glu	Thr	Asp	Lys	His	Thr
1															15
Glu	Asp	Gln	Ser	Pro	Ser	Thr	Pro	Leu	Pro	Gln	Pro	Ala	Ala	Glu	Lys
															30
Asn	Ser	Tyr	Leu	Tyr	Ser	Thr	Glu	Ile	Thr	Leu	Trp	Thr	Val	Val	Ala
															45
Ala	Ile	Gln	Ala	Leu	Glu	Lys	Lys	Val	Asp	Ser	Cys	Leu	Thr	Arg	Leu
															60
Leu	Thr	Leu	Glu	Gly	Arg	Thr	Gly	Thr	Ala	Glu	Lys	Lys	Leu	Ala	Asp
															80
Cys	Glu	Lys	Thr	Ala	Val	Glu	Phe	Gly	Asn	Gln	Leu	Glu	Gly	Lys	Trp
															95
Ala	Val	Leu	Gly	Thr	Leu	Leu	Gln	Glu	Tyr	Gly	Leu	Leu	Gln	Arg	Arg
															110
Leu	Glu	Asn	Val	Glu	Asn	Leu	Leu	Arg	Asn	Arg	Asn	Phe	Trp	Ile	Leu
															125
Arg	Leu	Pro	Pro	Gly	Ser	Lys	Gly	Glu	Ala	Pro	Lys	Val	Pro	Val	Thr
															140
Phe	Asp	Asp	Val	Ala	Val	Tyr	Phe	Ser	Glu	Leu	Glu	Trp	Gly	Lys	Leu
															160
Glu	Asp	Trp	Gln	Lys	Glu	Leu	Tyr	Lys	His	Val	Met	Arg	Gly	Asn	Tyr
															175
Glu	Thr	Leu	Val	Ser	Leu	Asp	Tyr	Ala	Ile	Ser	Lys	Pro	Asp	Ile	Leu
															190
Thr	Arg	Ile	Glu	Arg	Gly	Glu	Glu	Pro	Cys	Leu	Asp	Arg	Trp	Gly	Gln
															205
Glu	Lys	Gly	Asn	Glu	Val	Glu	Val	Gly	Arg	Pro	Arg	Met	Met	Gly	Thr
															220
Gly	Leu	Pro	Pro	Tyr	Pro	Glu	His	Leu	Thr	Ser	Pro	Leu	Ser	Pro	Ala

225	230	235	240
Gln Glu Glu Leu Lys Glu Gly Gln Ala Pro Lys Gln Gln Gln Asp Ser			
245	250	255	
Glu Ala Arg Val Ala Pro Ala Gly Pro Glu Ala Gly Leu Ala Leu Arg			
260	265	270	
Thr Asp Leu Gln Gly Glu Ala Gln Ile			
275	280		

<210> 4982

<211> 126

<212> PRT

<213> Homo sapiens

<400> 4982

Met Ser Pro Pro Pro Leu Leu Phe Pro Gly Pro Ser His His His Val			
1	5	10	15
Ser Pro Gly Leu Leu His Ala Pro Pro Thr Trp Ser Pro His Phe Cys			
20	25	30	
Pro Gly Arg Gly Trp Cys Val Leu His Pro Ala Thr Gln Gln Ser Glu			
35	40	45	
Gly Ser Ser Tyr Asn Ile Ser Gln Ile Thr Ser Leu Phe Ala Gln Asn			
50	55	60	
Pro Ala Met Ala Pro Ile Ser Phe Arg Val Asn Ser Lys Ala Pro Tyr			
65	70	75	80
Leu Pro Thr Ala Pro His Ser Arg Thr Phe Pro Pro Val Val Leu Pro			
85	90	95	
Leu Val Pro Ser Ile Pro Ala Thr Gly Ile Ser Leu Leu Ala Pro Glu			
100	105	110	
Leu Thr Arg Tyr Gly Ala Ala Ser Gly Pro Leu His Leu Gln			
115	120	125	

<210> 4983

<211> 266

<212> PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4983

Met	Val	Met	Ala	Asp	Gln	Asn	Gln	Val	Trp	Val	Gly	Ser	Glu	Asp	Ser
1															
			5					10						15	
Val	Ile	Tyr	Ile	Ile	Asn	Val	His	Ser	Met	Ser	Cys	Asn	Lys	Gln	Leu
			20				25							30	
Thr	Ala	His	Cys	Ser	Ser	Val	Thr	Asp	Leu	Ile	Val	Gln	Asp	Gly	Gln
			35				40							45	
Glu	Ala	Pro	Ser	Asn	Val	Tyr	Ser	Cys	Ser	Met	Asp	Gly	Met	Val	Leu
			50				55							60	
Val	Trp	Asn	Val	Ser	Thr	Leu	Gln	Val	Thr	Ser	Arg	Phe	Gln	Leu	Pro
			65			70			75					80	
Arg	Gly	Gly	Leu	Thr	Ser	Ile	Arg	Leu	His	Gly	Gly	Arg	Leu	Trp	Cys
			85				90							95	
Cys	Thr	Gly	Asn	Ser	Ile	Met	Val	Met	Lys	Met	Asn	Gly	Ser	Leu	His
			100			105								110	
Gln	Glu	Leu	Lys	Ile	Glu	Glu	Asn	Phe	Lys	Asp	Thr	Ser	Thr	Ser	Phe
			115			120			125						
Leu	Ala	Phe	Gln	Leu	Leu	Pro	Glu	Glu	Glu	Gln	Leu	Trp	Ala	Ala	Cys
			130			135			140						
Ala	Gly	Arg	Ser	Glu	Val	Tyr	Ile	Trp	Ser	Leu	Lys	Asp	Leu	Ala	Gln
			145			150			155					160	
Pro	Pro	Gln	Arg	Val	Pro	Leu	Glu	Asp	Cys	Ser	Glu	Ile	Asn	Cys	Met
			165				170							175	
Ile	Arg	Val	Lys	Lys	Gln	Val	Gly	Trp	Arg	Ala	Arg	His	Pro	Gln	His
			180			185			190						
Pro	Arg	Gln	Val	Ser	Leu	Ala	Leu	Ala	Ala	Ser	Pro	Cys	Ser	Arg	Glu
			195			200			205						
Pro	Ala	Ala	Arg	Pro	Arg	Ala	Leu	Leu	Pro	Ser	Pro	Leu	Arg	Val	Pro
			210			215			220						
Leu	Leu	Thr	Gly	Thr	Cys	Arg	Val	Gly	Ala	Asn	Gly	Pro	Thr	Gly	His
			225			230			235					240	
His	Val	Leu	Val	Ser	Trp	Cys	Gly	Pro	Ser	Thr	Pro	Gln	Arg	Ile	Pro
			245			250			255						

Pro Asn Trp Met Ala Ser Asn Asp Arg Thr

260

265

<210> 4984

<211> 251

<212> PRT

<213> Homo sapiens

<400> 4984

Met Gly Met Gly Thr Leu Ala Trp Gly Gln Pro Leu Leu Pro Arg Cys

1

5

10

15

Leu Cys Pro Arg Ala Gly Gln Arg Gln Pro Val Val Thr Ala Ala Val

20

25

30

Ala Ala Pro Gln Leu Thr Met Asn Asp Phe Ser Val His Arg Ile Ile

35

40

45

Gly Arg Gly Gly Phe Gly Glu Val Tyr Gly Cys Arg Lys Ala Asp Thr

50

55

60

Gly Lys Met Tyr Ala Met Lys Cys Leu Asp Lys Lys Arg Ile Lys Met

65

70

75

80

Lys Gln Gly Glu Thr Leu Ala Leu Asn Glu Arg Ile Met Leu Ser Leu

85

90

95

Val Ser Thr Gly Asp Cys Pro Phe Ile Val Cys Met Ser Tyr Ala Phe

100

105

110

His Thr Pro Asp Lys Leu Ser Phe Ile Leu Asp Leu Met Asn Gly Gly

115

120

125

Asp Leu His Tyr His Leu Ser Gln His Gly Val Phe Ser Glu Ala Asp

130

135

140

Met Arg Phe Tyr Ala Ala Glu Ile Ile Leu Gly Leu Glu His Met His

145

150

155

160

Asn Arg Phe Val Val Tyr Arg Asp Leu Lys Val Ser Ala Pro Ala Val

165

170

175

Pro Arg Leu Asp Leu Arg Gly Cys Pro Leu Leu Pro Leu Asp Ile Pro

180

185

190

Ala Thr Arg Pro Arg Gly Val Gly Leu Leu Gly His Gly Arg Pro Val

195	200	205
Ser Ser His Leu Arg Pro Cys Pro Ser His Arg Ala Thr Leu Trp Val		
210	215	220
Gln Val Val Ala Gly Asp Arg Arg Glu Asp Pro His Leu Cys Pro Phe		
225	230	235
Phe Gly Tyr Pro Ser Ser Pro Val Lys Gln		
245	250	

<210> 4985

<211> 350

<212> PRT

<213> Homo sapiens

<400> 4985

Met Met Glu Ser Ser Glu Leu Thr Pro Lys Gln Glu Ile Phe Lys Gly			
1	5	10	15
Ser Glu Ser Ser Asn Ser Thr Ser Gly Gly Leu Phe Gly Val Val Pro			
20	25	30	
Gly Gly Thr Glu Thr Gly Asp Val Cys Glu Asp Thr Phe Lys Glu Leu			
35	40	45	
Glu Gly Gln Pro Ser Asn Glu Glu Gly Ser Arg Leu Glu Ser Asp Phe			
50	55	60	
Leu Glu Ile Ile Asp Glu Asp Lys Lys Ser Thr Lys Asp Arg Tyr			
65	70	75	80
Glu Glu Tyr Lys Glu Val Glu Glu His Pro Pro Leu Ser Ser Pro			
85	90	95	
Val Glu His Glu Gly Val Leu Lys Gly Gln Lys Ser Tyr Arg Cys Asp			
100	105	110	
Glu Cys Gly Lys Ala Phe Tyr Trp Ser Ser His Leu Ile Gly His Arg			
115	120	125	
Arg Ile His Thr Gly Glu Lys Pro Tyr Glu Cys Asn Glu Cys Gly Lys			
130	135	140	
Thr Phe Arg Gln Thr Ser Gln Leu Ile Val His Leu Arg Thr His Thr			
145	150	155	160
Gly Glu Lys Pro Tyr Glu Cys Ser Glu Cys Gly Lys Ala Tyr Arg His			

165	170	175
Ser Ser His Leu Ile Gln His Gln Arg Leu His Asn Gly Glu Lys Pro		
180	185	190
Tyr Lys Cys Asn Glu Cys Ala Lys Ala Phe Asn Gln Ser Ser Lys Leu		
195	200	205
Phe Asp His Gln Arg Thr His Thr Gly Glu Lys Pro Tyr Glu Cys Lys		
210	215	220
Glu Cys Gly Ala Ala Phe Ser Arg Ser Lys Asn Leu Val Arg His Gln		
225	230	235
Phe Leu His Thr Gly Lys Lys Pro Tyr Lys Cys Asn Glu Cys Gly Arg		
245	250	255
Ala Phe Cys Ser Asn Arg Asn Leu Ile Asp His Gln Arg Thr His Thr		
260	265	270
Gly Glu Lys Pro Tyr Lys Cys Asn Glu Cys Gly Lys Ala Phe Ser Arg		
275	280	285
Ser Lys Cys Leu Ile Arg His Gln Ser Leu His Thr Gly Glu Lys Pro		
290	295	300
Tyr Lys Cys Ser Glu Cys Gly Lys Ala Phe Asn Gln Ile Ser Gln Leu		
305	310	315
Val Glu His Glu Arg Ile His Thr Gly Glu Lys Pro Phe Lys Cys Ser		
325	330	335
Glu Cys Gly Lys Ala Phe Gly Leu Ser Lys Cys Leu Ile Arg		
340	345	350

<210> 4986

<211> 191

<212> PRT

<213> Homo sapiens

<400> 4986

Met Tyr Ala Lys Arg Pro Glu Ser Phe Ser Cys Lys Lys Leu Ala Met			
1	5	10	15
Ser Lys Lys Val Thr Pro Ala Ser Thr Gln Cys Val Arg Phe Pro Phe			
20	25	30	
Pro Ser Thr Val Val Cys Lys Lys Asn Leu Asp Ser Thr Thr Val Ala			

35	40	45
Val His Gly Glu Glu Ile Tyr Cys Lys Ser Cys Tyr Gly Lys Lys Tyr		
50	55	60
Gly Pro Lys Gly Tyr Gly Tyr Gly Gln Gly Ala Gly Thr Leu Ser Thr		
65	70	75
Asp Lys Gly Glu Ser Leu Gly Ile Lys His Glu Glu Ala Pro Gly His		
85	90	95
Arg Pro Thr Thr Asn Pro Asn Ala Ser Lys Phe Ala Gln Lys Ile Gly		
100	105	110
Gly Ser Glu Arg Cys Pro Arg Cys Ser Gln Ala Val Tyr Ala Ala Glu		
115	120	125
Lys Val Ile Gly Ala Gly Lys Ser Trp His Lys Ala Cys Phe Arg Cys		
130	135	140
Ala Lys Cys Gly Lys Gly Leu Glu Ser Thr Thr Leu Ala Asp Lys Asp		
145	150	155
Gly Glu Ile Tyr Cys Lys Gly Cys Tyr Ala Lys Asn Phe Gly Pro Lys		
165	170	175
Gly Phe Gly Phe Gly Gln Gly Ala Gly Ala Leu Val His Ser Glu		
180	185	190

<210> 4987

<211> 482

<212> PRT

<213> Homo sapiens

<400> 4987

Met Trp Thr Val Pro Ser Phe Thr Asn Asp Ser Tyr Gln Val Tyr Asn			
1	5	10	15
Val Phe Ser Thr Asn Ser Phe Gln Leu Leu Thr Val Lys Arg Thr Pro			
20	25	30	
His Glu Ala Trp Arg Val Pro Leu Thr Thr Lys Thr Asn Lys Thr Lys			
35	40	45	
Gly Leu Pro Asp Cys Pro Lys Lys Pro Thr Asn Gly Pro Phe Ile Val			
50	55	60	
Thr Ser Ile Leu Trp Asp Asn Cys Asn Ala Pro Lys Ala Val Val Leu			

65	70	75	80
Gln Thr Leu Ala Met Gly Ile Val Ile Asp Trp Ala Pro Lys Gly His			
85	90	95	
Tyr Trp Gln Asp Cys Ser Ser Lys Asn Thr Leu Cys Ser Glu Phe Ile			
100	105	110	
Tyr Ser Leu Asp Tyr Ile Glu His Gly Trp Gln Ser Tyr Thr Met Arg			
115	120	125	
Gln Arg Val Ser Pro Tyr Pro Phe Lys Trp Met Asp Thr Gly Ile Ala			
130	135	140	
Pro Pro Arg Pro Lys Ile Ile His Pro Phe Phe Thr Pro Glu His Pro			
145	150	155	160
Glu Leu Trp Lys Leu Ala Ala Ala Leu Ser Gly Ile Lys Ile Trp Asn			
165	170	175	
Thr Thr Tyr Gln Leu Leu Arg Thr Lys Thr Lys Thr Pro Thr Phe Asn			
180	185	190	
Ile Thr Leu Ile Ser Glu Trp Val Ile Pro Ile Arg Ser Cys Val Lys			
195	200	205	
Pro Pro Tyr Met Leu Leu Val Gly Asn Ile Ile Met Met Pro Asp Ala			
210	215	220	
Gln Thr Ile Glu Cys His Asn Cys Lys Leu Phe Thr Cys Ile Asp Ala			
225	230	235	240
Thr Phe Asn Pro Thr Thr Ser Ile Leu Leu Val Arg Ala Arg Glu Gly			
245	250	255	
Val Trp Ile Pro Val Ser Leu His Pro Trp Glu Ser Ser Pro Ser			
260	265	270	
Ile His Ile Val Asn Glu Val Leu Lys Asp Ile Leu Lys Arg Thr Lys			
275	280	285	
Arg Phe Ile Phe Thr Leu Ile Ala Val Leu Ala Gly Leu Leu Ala Val			
290	295	300	
Thr Ala Thr Ala Ala Thr Ala Gly Val Ala Ile Arg Ser Ser Val Gln			
305	310	315	320
Thr Ala His Tyr Val Glu Ala Cys Gln Lys Asn Ser Ser Arg Leu Trp			
325	330	335	
Asn Ser Gln Ala Gln Ile Asp Gln Lys Leu Ala Asn Gln Ile Asn Asp			
340	345	350	
Leu Arg Gln Ser Val Thr Trp Leu Gly Asp Arg Val Met Asn Leu Gln			

355	360	365
His Arg Met Gln Leu Gln Cys Asp Trp Asn Thr Ser Asp Tyr Cys Ile		
370	375	380
Thr Pro Tyr Ala Tyr Asn Gln Asp Gln His Ser Trp Glu Asn Val Ser		
385	390	395
Arg His Leu Lys Ala Trp Asp Asp Asn Leu Thr Leu Asp Ile Ser Gln		
405	410	415
Leu Lys Glu Gln Ile Phe Glu Ala Ser Gln Val His Leu Ser Thr Val		
420	425	430
Pro Gly Ser His Ile Phe Glu Gly Ile Thr Lys Gln Leu Pro Asp Phe		
435	440	445
Asn Pro Phe Lys Trp Leu Lys Pro Val Arg Gly Ser Leu Leu Leu		
450	455	460
Ala Leu Leu Ile Leu Val Cys Leu Cys Cys Leu Leu Leu Val Cys Arg		
465	470	475
Cys Leu		

<210> 4988

<211> 465

<212> PRT

<213> Homo sapiens

<400> 4988

Met Ala Ser Val Cys Cys Leu Pro Pro Pro Arg Ala Thr Trp Ala Ser			
1	5	10	15
Trp Thr Arg Cys Pro Gly Cys Thr Thr Cys Trp Leu Ala Pro Thr Pro			
20	25	30	
Pro Arg Cys Trp Pro Ser Pro Trp Ser Arg Gly Gly Asp Ser Trp Pro			
35	40	45	
Pro Cys Pro Arg Thr Val Pro Ser Ala Ser Gly Ala Trp Pro Pro Cys			
50	55	60	
Asn Ser Ser Gly Ala Val Arg Ser Phe Ser Leu Glu Ala Ala Glu Val			
65	70	75	80
Leu Val Glu His Thr Cys His Arg Gly Ala Val Thr Gly Leu Thr Ala			

85	90	95	
Thr Pro Asp Gly Arg Leu Leu Phe Ser Ser Cys Ser Gln Gly Ser Leu			
100	105	110	
Ala Gln Tyr Ser Cys Ala Asp Pro Gln Trp His Val Leu Arg Val Ala			
115	120	125	
Ala Asp Met Val Cys Pro Asp Ala Pro Ala Ser Pro Ser Ala Leu Ala			
130	135	140	
Val Ser Arg Asp Gly Arg Leu Leu Ala Phe Val Gly Pro Ser Arg Cys			
145	150	155	160
Thr Val Thr Val Met Gly Ser Ala Ser Leu Asp Glu Leu Leu Arg Val			
165	170	175	
Asp Ile Gly Thr Leu Asp Leu Ala Ser Ser Arg Leu Asp Ser Ala Met			
180	185	190	
Ala Val Cys Phe Gly Pro Ala Ala Leu Gly Gln Leu Leu Val Ser Thr			
195	200	205	
Ser Ser Asn Arg Val Val Val Leu Asp Ala Val Ser Gly Arg Ile Ile			
210	215	220	
Arg Glu Leu Pro Gly Val His Pro Glu Pro Cys Pro Ser Leu Thr Leu			
225	230	235	240
Ser Glu Asp Ala Arg Phe Leu Leu Ile Ala Ala Gly Arg Thr Ile Lys			
245	250	255	
Val Trp Asp Tyr Ala Thr Gln Ala Ser Pro Gly Pro Gln Val Tyr Ile			
260	265	270	
Gly His Ser Glu Pro Val Gln Ala Val Ala Phe Ser Pro Asp Gln Gln			
275	280	285	
Gln Val Leu Ser Ala Gly Asp Ala Val Phe Leu Trp Asp Val Leu Ala			
290	295	300	
Thr Thr Glu Ser Asp Gln Ser Phe Pro Gly Ala Pro Pro Ala Cys Lys			
305	310	315	320
Thr Gly Pro Gly Ala Gly Pro Leu Glu Asp Ala Ala Ser Arg Ala Ser			
325	330	335	
Glu Leu Pro Arg Gln Gln Val Pro Lys Pro Cys Gln Ala Ser Pro Pro			
340	345	350	
Arg Leu Gly Val Cys Ala Arg Pro Pro Glu Gly Gly Asp Gly Ala Arg			
355	360	365	
Asp Thr Arg Asn Ser Gly Ala Pro Arg Thr Thr Tyr Leu Ala Ser Cys			

370	375	380
Lys Ala Phe Thr Leu Ala Arg Val Ser Cys Ser Pro His Ser Ala Lys		
385	390	395
Gly Thr Cys Pro Pro Pro Ala Ser Gly Gly Trp Leu Arg Leu Lys Ala		
405	410	415
Val Val Gly Tyr Ser Gly Asn Gly Arg Ala Asn Met Val Trp Arg Pro		
420	425	430
Asp Thr Gly Gly Gln Glu Pro Thr Pro Thr Pro Ser Gln Asp Ala		
435	440	445
Ala Ala Arg Gly Pro Ala Val Ser Thr Pro Arg Pro Gly Pro Gly Gly		
450	455	460
Lys		
465		

<210> 4989

<211> 134

<212> PRT

<213> Homo sapiens

<400> 4989

Met Gly Lys Lys Gln Ser Arg Lys Thr Gly Asn Ser Lys Lys Gln Ser		
1	5	10
Ala Ser Pro Pro Pro Lys Glu Cys Ser Ser Ser Pro Ala Thr Glu Gln		
20	25	30
Ser Trp Met Glu Asn Asp Phe Asp Glu Leu Arg Glu Ala Gly Phe Arg		
35	40	45
Arg Ser Asn Tyr Ser Glu Leu Arg Glu Asp Ile Gln Thr Lys Gly Lys		
50	55	60
Lys Val Glu Asn Phe Glu Lys Asn Leu Glu Glu Cys Ile Thr Arg Ile		
65	70	75
Thr Asn Thr Glu Lys Cys Leu Lys Glu Leu Met Glu Leu Lys Thr Lys		
85	90	95
Ala Arg Glu Leu Arg Glu Glu Cys Arg Ser Leu Arg Ser Arg Cys Asp		
100	105	110
Gln Leu Glu Glu Arg Val Ser Ala Met Glu Asp Glu Met Asn Glu Met		

115

120

125

Lys Gln Glu Gly Lys Val

130

&lt;210&gt; 4990

&lt;211&gt; 589

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 4990

Met Asn Asn Arg Lys Glu Asp Met Glu Ile Thr Ser His Tyr Arg His

1 5 10 15

Leu Leu Arg Glu Leu Asn Glu Gln Arg Gln His Gly Val Leu Cys Asp  
20 25 30Val Cys Val Val Val Glu Gly Lys Val Phe Lys Ala His Lys Asn Val  
35 40 45Leu Leu Gly Ser Ser Arg Tyr Phe Lys Thr Leu Tyr Cys Gln Val Gln  
50 55 60Lys Thr Ser Glu Gln Ala Thr Val Thr His Leu Asp Ile Val Thr Ala  
65 70 75 80Gln Gly Phe Lys Ala Ile Ile Asp Phe Met Tyr Ser Ala His Leu Ala  
85 90 95Leu Thr Ser Arg Asn Val Ile Glu Val Met Ser Ala Ala Ser Phe Leu  
100 105 110Gln Met Thr Asp Ile Val Gln Ala Cys His Asp Phe Ile Lys Ala Ala  
115 120 125Leu Asp Ile Ser Ile Lys Ser Asp Ala Ser Asp Glu Leu Ala Glu Phe  
130 135 140Glu Ile Gly Ala Ser Ser Ser Ser Thr Glu Ala Leu Ile Ser Ala  
145 150 155 160Val Met Ala Gly Arg Ser Ile Ser Pro Trp Leu Ala Arg Arg Thr Ser  
165 170 175Pro Ala Asp Ser Ser Gly Asp Ser Ala Ile Ala Ser Cys His Asp Gly  
180 185 190

Gly Ser Ser Tyr Gly Lys Glu Asp Gln Glu Pro Lys Ala Asp Gly Pro

195	200	205
Asp Asp Val Ser Ser Gln Pro Leu Trp Pro Gly Asp Val Gly Tyr Gly		
210	215	220
Pro Leu Arg Ile Lys Glu Glu Gln Val Ser Pro Ser Gln Tyr Gly Gly		
225	230	235
Ser Glu Leu Pro Ser Ala Lys Asp Gly Ala Val Gln Asn Ser Phe Ser		
245	250	255
Glu Gln Ser Ala Gly Asp Ala Trp Gln Pro Thr Gly Arg Arg Lys Asn		
260	265	270
Arg Lys Asn Lys Glu Thr Val Arg His Ile Thr Gln Gln Val Glu Asp		
275	280	285
Asp Ser Arg Ala Ser Ser Pro Val Pro Ser Phe Leu Pro Thr Ser Gly		
290	295	300
Trp Pro Phe Ser Ser Arg Asp Ser Asn Ala Asp Leu Ser Val Thr Glu		
305	310	315
Ala Ser Ser Ser Asp Ser Arg Gly Glu Arg Ala Glu Leu Tyr Ala Gln		
325	330	335
Val Glu Glu Gly Leu Leu Gly Glu Ala Ser Tyr Leu Gly Pro Pro		
340	345	350
Leu Thr Pro Glu Lys Asp Asp Ala Leu His Gln Ala Thr Ala Val Ala		
355	360	365
Asn Leu Arg Ala Ala Leu Met Ser Lys Asn Ser Leu Leu Ser Leu Lys		
370	375	380
Ala Asp Val Leu Gly Asp Asp Gly Ser Leu Leu Phe Glu Tyr Leu Pro		
385	390	395
Arg Gly Ala His Ser Leu Ser Leu Asn Glu Phe Thr Val Ile Arg Lys		
405	410	415
Lys Phe Lys Cys Pro Tyr Cys Ser Phe Ser Ala Met His Gln Cys Ile		
420	425	430
Leu Lys Arg His Met Arg Ser His Thr Gly Glu Arg Pro Tyr Pro Cys		
435	440	445
Glu Ile Cys Gly Lys Lys Phe Thr Arg Arg Glu His Met Lys Arg His		
450	455	460
Thr Leu Val His Ser Lys Asp Lys Lys Tyr Val Cys Lys Val Cys Ser		
465	470	475
Arg Val Phe Met Ser Ala Ala Ser Val Gly Ile Arg His Gly Ser Arg		

485	490	495
Arg His Gly Val Cys Thr Asp Cys Ala Gly Arg Gly Met Ala Gly Pro		
500	505	510
Leu Asp His Gly Gly Gly Gly Glu Gly Ser Pro Glu Ala Leu Phe		
515	520	525
Pro Gly Asp Gly Pro Tyr Leu Glu Asp Pro Glu Asp Pro Arg Gly Glu		
530	535	540
Ala Glu Glu Leu Gly Glu Asp Asp Glu Gly Leu Ala Pro Glu Asp Ala		
545	550	555
Leu Leu Ala Asp Asp Lys Asp Glu Glu Asp Ser Pro Arg Pro Arg Ser		
565	570	575
Pro Pro Gly Gly Pro Asp Lys Asp Phe Ala Trp Leu Ser		
580	585	

<210> 4991

<211> 30

<212> RNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized oligo-cap linker sequence

<400> 4991

agcaucgagu cggccuuguu ggccuacugg 30

<210> 4992

<211> 42

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized oligo(dT) primer sequence

<400> 4992

gcggctgaag acggcctatg tggccttttt tttttttt tt 42

<210> 4993

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized primer sequence

<400> 4993

agcatcgagt cggccttgtt g 21

<210> 4994

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: an artificially synthesized primer sequence

<400> 4994

gcggctgaag acggcctatg t 21